

BUSINESS WEEK

JULY 10, 1948



John H. Hinman: Forests should be harvested, not "mined" (page 6)



BUSINESS
WEEK
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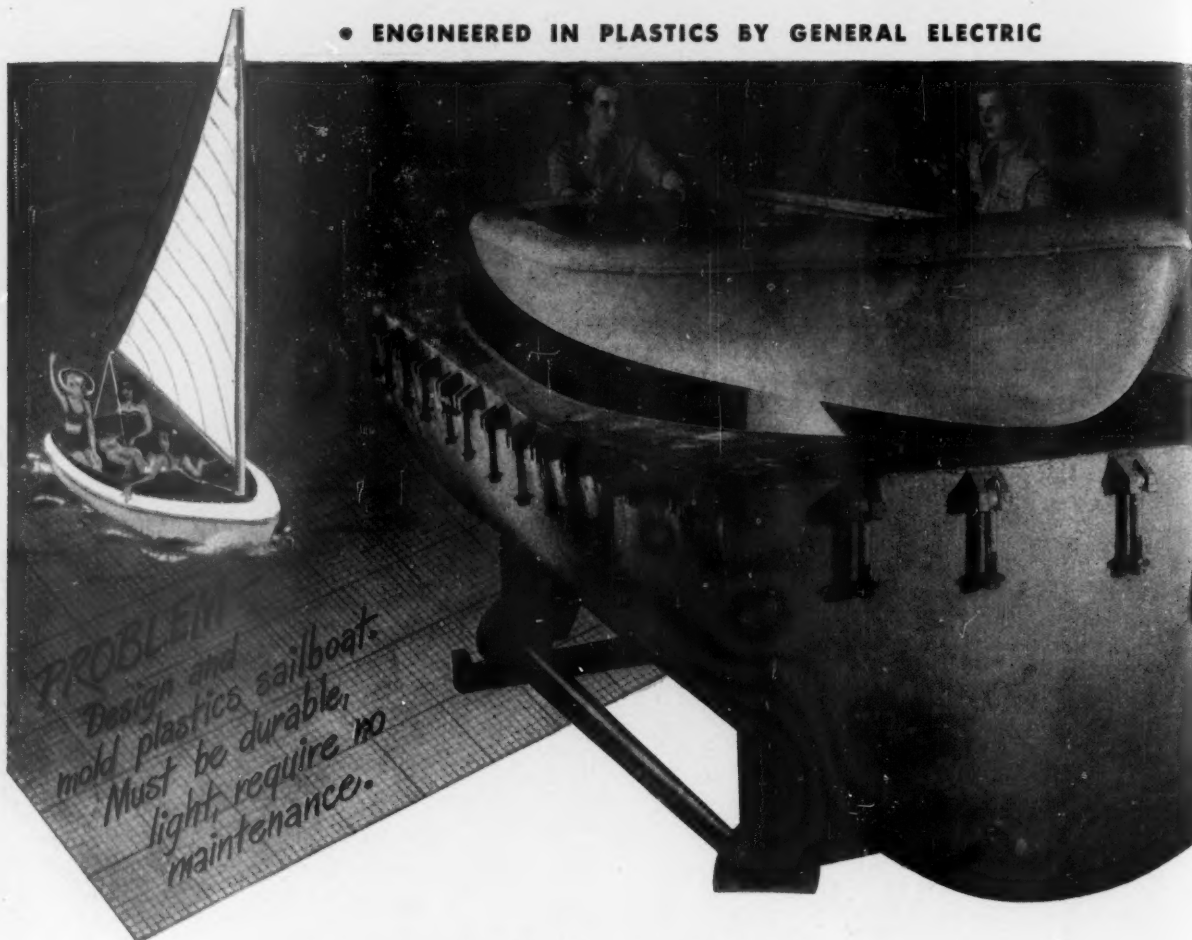
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THE COVER

International Paper Co. has long been a leader in industry efforts to sell scientific forest management to the woodland owners of America. One big reason for this leadership is John H. Hinman, International's president.

Hinman's first job with the company, 35 years ago, was as woods manager of a subsidiary. For eight years he was in charge of the firm's entire timberland and woods operations. And he carried into his present post his deep interest in forest conservation and full utilization of woodlands.

• **Teaching**—In northern United States and Canada, International grows as much wood as its mills there consume—close to 2-million cords a year. But in the South, it buys 90% of its wood from farmers and landowners. (It handles one-third of all the pulpwood produced in this area.) So its efforts there are directed at teaching its southern suppliers how to grow, cultivate, and harvest trees as a perpetual cash crop.

When International was organized just 50 years ago, more than 90% of its mill capacity was newsprint. Total production that first year was 400,000 tons. In its 50th year it turned out 2,983,132 tons, and only 23% was newsprint. Diversification has led it into almost every type of paper and wood-pulp product.

• **Credo**—Behind this development is Hinman's basic philosophy: "The future of International does not lie in any narrow conception of the uses of wood, but in a full realization that we are harvesters of a crop from which we, alone or with others, can develop a great variety of products for the good of man."

Now 62, Hinman has been president of International since 1943. Under his guidance, the company last year passed another milestone: freedom from funded debt.

—Complete story on forest industry tree-crop programs starts on page 22.
Cover photo by Fabian Bachrach.

BUSINESS OUTLOOK

BUSINESS WEEK

JULY 10, 1948



Taking the spotlight this week were three major business developments:

- (1) A sharp break from basing-point to f.o.b. pricing (page 19).
- (2) The spreading shutdown in soft coal.
- (3) The impending settlement of the steel industry's wage issue.

Front and center in the stellar role: Big Steel. It's the United States Steel Corp. that's leading the way on all three fronts.

One thing sure to follow from the shift to f.o.b. pricing in steel: A host of steel users, forced to pay freight, will have their competitive positions damaged. They certainly will ask Congress for relief.

Thus, chances of legalizing some system of basing points are enhanced.

Short range business developments depend to a great extent on coal and, in turn, on the rate of steel output.

Betting this week was against any drawn-out loss of coal production.

The National Labor Relations Board moved quickly on the "captive" mine operators' charge that John L. Lewis was guilty of an unfair labor practice in standing pat for a union shop.

The mine owners were willing all along to settle on pay and pensions. But their lawyers told them accepting a union shop under present circumstances would be illegal.

Looking ahead, the biggest sustaining factor in the American economy is government spending and supports.

Effects of foreign aid and military spending are easily grasped.

But there is more to it than this. You see it now in support prices for agriculture. Wheat prices are being buoyed by federal supports.

All this is dangerous at the same time that it is comforting. It is comparable, in a way, to our big loans to Europe after World War I.

We are propping up the boom, both in production and prices. This prevents natural corrections. It is artificial.

The danger is that some props may be removed—or just fall down.

Extreme postwar boom conditions are past in most industries. Autos, housing, and certain types of machinery are among the few lines that have nowhere near reached the top of their markets.

Ordinarily, the continuing boom in these lines would be our cushion. They would let us down softly—without the dreaded bump—but sag we would.

Now, however, they are supplemented by the governmental supports and spending. This gives the business situation an air of unreality.

Forecasting the timing of business swings becomes almost impossible.

All manufacturers' sales in May were a shade lower than in April. However, May had fewer working days. Averaged out on a daily basis, there was virtually no change between the two months.

Thus, it is obvious that few industries are faring too badly.

In fact, there is too much comparing of today with the postwar peak. Thus, you hear talk of this or that industry being in a bad way.

Actually, most lines are just shaking down to a normal market.

Such is the situation in vacuum cleaners. Competition is keen. Sales

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
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in May were down more than 8% from April and 12½% below a year ago. Yet volume still is far and away ahead of best prewar levels.

Addition of about \$300-million to manufacturers' inventories during May doesn't mean a resumption of active accumulation.

Stronger markets, to be sure, encourage purchasing agents to buy. Yet the May increase in dollar value of stocks was only about 1%, bringing the total to \$29½-billion.

Such a rise hardly matches the month's price movement. The average of all wholesale prices in May was up a bit more than 1%.

Nevertheless, manufacturers probably added a little over a billion to value of inventory in the first half of 1948. And the price level in June was about the same as in January (having regained February-March losses).

Exports under the European Cooperation Administration only recently have begun to be felt as an important domestic economic factor.

In fact, May exports showed a further decline. The trend has been down ever since October, 1947; the fall has been from \$1.3-billion monthly to \$1.1-billion in that period.

Imports, however, have averaged considerably better in 1948—although both April and May were substantially below the March peak.

We now are buying abroad about half as much as we are selling. A year ago, we were taking only about one-third what we were exporting.

This relieves (1) the strain on domestic production, and (2) on foreign dollar balances. From now on, though, imports once again will tend to fall behind as ECA shipments bolster exports.

Many industries will show slightly more than the ordinary dip in output over the Fourth of July weekend.

The story is very simple. More than ever before, companies are giving paid vacations and closing down for one or two weeks.

Cotton textile activity was at low ebb this week as most mills closed for vacations. And curtailment for some is more than just a holiday.

Not a few mills have knocked off the third shift or Saturday work—or both. Talk is doleful—about overproduction and underconsumption.

One big company has gone so far as to give employees a "Scotch week"—an extra week's vacation, but without pay.

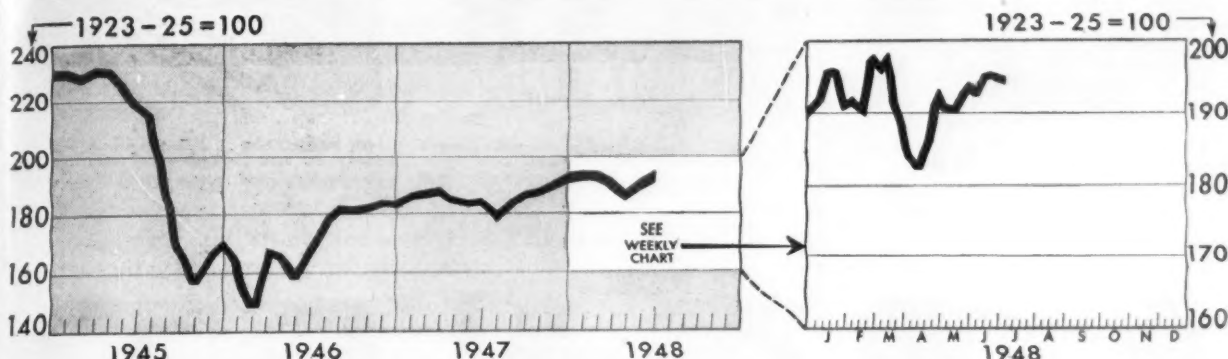
The boom in building continues without any sign of interruption.

Value of work put in place in May is estimated at \$1.6-billion by the Dept. of Commerce. Not only was the gain slightly greater than seasonal; but also it surpasses the previous highs of July, 1942, and October, 1947.

Housing goes right on making its important contribution. The June total is put at \$625-million. That's up about 9% from May and more than half again the value put in place in June last year.

You may have trouble getting a turkey much bigger than a pigeon for Thanksgiving, but you can get one later. Realizing the shortage, everybody has been trying to buy poults. Hatcheries, in response to this sudden demand, had 82% more turkey eggs in incubators June 1 than in 1947.

FIGURES OF THE WEEK



Business Week Index (above) *194.8 †195.1 193.3 172.8 162.2

PRODUCTION

Steel ingot operations (% of capacity).....	90.3	95.2	96.1	78.9	97.3
Production of automobiles and trucks.....	112,349	†95,027	75,607	66,460	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$26,816	\$25,925	\$25,297	\$18,359	\$19,433
Electric power output (million kilowatt-hours).....	5,166	5,257	4,845	4,190	3,130
Crude oil (daily average, 1,000 bbls.).....	5,484	5,494	5,471	5,065	3,842
Bituminous coal (daily average, 1,000 tons).....	2,129	†2,239	2,278	1,355	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars).....	82	82	84	85	86
All other carloadings (daily average, 1,000 cars).....	67	69	67	56	52
Money in circulation (millions).....	\$27,900	\$27,792	\$27,895	\$28,409	\$9,613
Department store sales (change from same week of preceding year).....	+7%	+21%	+19%	+3%	+17%
Business failures (Dun & Bradstreet, number).....	103	111	91	82	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100).....	434.6	436.0	426.1	403.7	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	275.0	†276.0	277.0	261.5	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	383.9	392.7	394.3	360.8	146.6
Finished steel composite (Steel, ton).....	\$80.27	\$80.27	\$80.27	\$69.82	\$56.73
Scrap steel composite (Iron Age, ton).....	\$40.91	\$40.66	\$40.66	\$35.58	\$19.48
Copper (electrolytic, Connecticut Valley, lb.).....	21.500¢	21.500¢	21.500¢	21.500¢	12.022¢
Wheat (Kansas City, bu.).....	\$2.24	\$2.30	\$2.39	\$2.15	\$0.99
Sugar (raw, delivered New York, lb.).....	5.60¢	5.54¢	5.27¢	6.19¢	3.38¢
Cotton (middling, ten designated markets, lb.).....	35.51¢	36.21¢	37.53¢	36.92¢	13.94¢
Wool tops (New York, lb.).....	\$1.963	\$1.995	\$1.996	\$1.553	\$1.281
Rubber (ribbed smoked sheets, New York, lb.).....	23.12¢	22.80¢	22.70¢	14.58¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.).....	133.4	133.0	132.7	123.9	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's).....	3.35%	3.34%	3.34%	3.19%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's).....	2.78%	2.76%	2.75%	2.55%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	1½%	1½%	1½%	1½-1½%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1½%	1½%	1½%	1%	1-1½%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	46,420	46,647	46,646	46,602	††27,777
Total loans and investments, reporting member banks.....	62,638	62,872	62,936	63,371	††32,309
Commercial and agricultural loans, reporting member banks.....	14,342	14,259	14,113	11,809	††6,963
Securities loans, reporting member banks.....	1,929	†1,807	1,830	2,252	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks.....	34,632	34,869	35,218	38,990	††15,999
Other securities held, reporting member banks.....	4,236	4,215	4,197	4,104	††4,303
Excess reserves, all member banks.....	680	710	920	526	5,290
Total federal reserve credit outstanding.....	21,900	21,721	21,292	22,145	2,265

*Preliminary, week ended July 3rd.

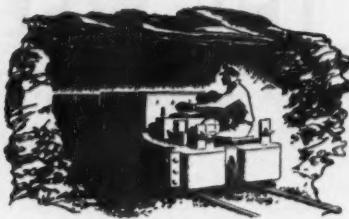
†Revised.

‡Date for "Latest Week" on each series on request.

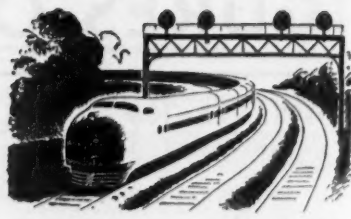
††Estimate (B.W.—Jul. 12 '47, p. 16).



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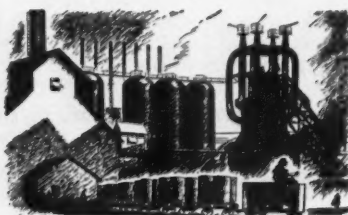
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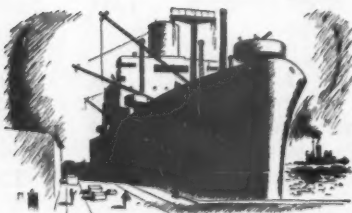
IN UTILITIES . . . Exide Batteries are used for control bus and switchgear operation, and other important tasks.



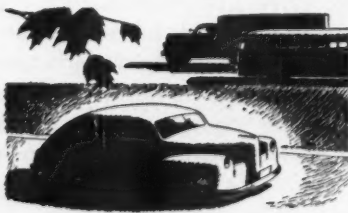
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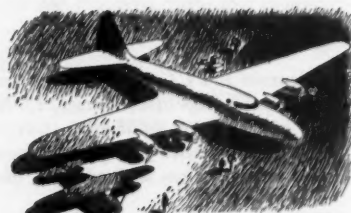
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WASHINGTON OUTLOOK



STOP-TRUMAN DEMOCRATS spent their preconvention week learning what stop-Dewey Republicans learned two weeks before: You can't beat somebody with nobody.

Taft, Stassen, Vandenberg, and the others in the stop-Dewey coalition perhaps held a majority of the delegates among them. But they never could get together on any one candidate.

Once the Eisenhower name was lost to them, the anti-Truman Democrats were in the same fix. They are a very mixed lot:

(1) White-supremacy southerners. They started their revolt over civil rights, but now they're trying to restore southern control over a minority Democratic Party.

(2) The old New Dealers whose spokesman is Americans for Democratic Action. They like everything about the Truman program except Truman; he just doesn't fight hard enough to please them. Supreme Court Justice William O. Douglas is their darling.

(3) The city bosses. They want spangled coat-tails for their local tickets to ride in on. In modern machine politics that means a name that can draw enthusiastic union workers and labor votes.

Sen. Byrd of Virginia, Leon Henderson, Frank Hague—even these three could get together on Gen. Eisenhower. He looked like a winner; he had no record that could prejudice any one of them against him.

After Eisenhower, there was no natural candidate to agree upon. In Philadelphia this week, anti-Truman forces were reduced to canvassing horses as dark as New York's Bob Wagner, the Senator's son. The Roosevelt name—Jimmy, that is—popped up, of course.

The A.D.A. people are seriously trying to sell Douglas. But they're having a hard time peddling him, particularly to the South. Short of the nomination, the Douglas talk builds him up for '52.

THE HEAT IS OFF of armament buying. It's to go ahead at what pace it can without priority help.

That was Truman's decision when Congress tossed him the power to allocate steel for military orders (BW-Jul.3'48,p16). He decided not to make any use of his new powers, told Commerce Secretary Sawyer to do what he could by voluntary agreements.

This puts armament in the same class as the stockpile of critical war materials. Last month when the Resources Board urged controls to back up stockpiling, Truman told the stockpilers to lay off.

To support munitions manufacture, Sawyer plans no formal use of the Taft voluntary allocation law. He's confident that, without negotiating agreements, industry will supply the million-odd tons of steel, for instance, needed this year.

What Sawyer chiefly fears is pressure from some manufacturers, themselves, for invoking the mandatory controls of the draft law. Some company will get into a tight supply situation and demand help. And if it's a little one, Rep. Ploeser's Small Business Committee—which fathered the steel-priority clause—will back up the demand.

Stockpile buying needs definite help if it's going to get anywhere; it isn't this year. The Munitions Board is busy now scaling down its ambitious buying plans. After that, Commerce will take a look—and probably a second slash.

The best help offered is this: Director Virden of Sawyer's office of Industry Cooperation will try to talk supply industries like nonferrous metals into setting aside a percentage of their output for stockpiling. How much of a percentage would be a matter for dickering; certainly never more than 5%.

This will be the second try at a percentage deal. Last month the Munitions Board tried to get a voluntary allotment of 10%. The board was turned down flat. Commerce has some hope that it can sell a smaller program.

Big obstacle: Virden can give the supplier no help in deciding what customers should suffer cuts; the supplier will have to bear the onus.

Voluntary allocation in general is turning out to be more piddling even than the modest hopes with which it started.

Its own Republican sponsors have lost interest. Sawyer got no response from Sen. Taft and Rep. Wolcott to his plea that the act be extended three months past its March, 1949, expiration date. Since it takes months to work up allocation agreements, the March expiration will cause a break in the program even if Congress does eventually extend it next year.

Total accomplishment of the program to date:

(1) A railway-car plan taken over bodily from

WASHINGTON OUTLOOK (Continued)

ODT; it has met its 10,000-car monthly goal only once so far—in June—and may have a hard time keeping it up.

(2) A group of agreements on various building materials. These maintain the supply of cast iron and the like to material producers at about the levels of last spring.

(3) An agreement to supply the Atomic Energy Commission with the materials it needs.

•
THE CAPTIVE MINES' unexpected balkiness at signing up with John L. Lewis caught Washington just relaxing into the prospect of a year's coal peace.

The coal mines that the steel companies operate to supply themselves have usually been the pushovers of the industry for Lewis. They have most to lose and least to gain in any strike.

Now, suddenly, they're boggling at an illegal union-shop contract which the commercial operators have already accepted.

•
The Taft-Hartley law forbids the union shop unless it has been voted in an NLRB election.

The law also withholds NLRB help from unions whose officers fail to certify that they aren't Communists. Out of pure defiance, Lewis has refused to admit he's not a Communist.

So NLRB can't hold an election to legalize the union-shop clause which has been in coal contracts since Pearl Harbor.

This year the captive mines refuse to be a party to evasion of Taft-Hartley.

•
How long will the strike last? That's up to the courts.

NLRB Counsel Denham expects to ask an injunction against the strike—on the ground that it's illegal to strike for an illegal objective.

This theory has never been directly tested in the courts. If the court rejects it, the President would have to start the machinery for an 80-day national-welfare injunction.

•
There's a feeling that the steel companies really have their eye on the steel mills when they attack the union-shop clause in their coal-mine contract.

Contract or no, U. M. W. mines just aren't

healthy for nonunion workers. But Murray's Steelworkers never have been organized tightly enough to get a union shop in the mills.

The Steelworkers' two-year contract expires in April. Murray hasn't signed a non-Communist affidavit either—so if Lewis can be balked now it will be easier to stand off a union-shop demand in steel next spring.

•
ABANDONMENT OF INDUSTRY-WIDE BARGAINING looks like the next device the rail unions will try to get around. A hard fact: You can't shut down the country's railroad system; one way or another, the government will stop any national strike.

The instant the government ends its present seizure of the railroads—with the signing of union contracts—you can look for a new outburst of disputes. But this time the disputes will be with individual roads.

•
The switchmen, firemen, and engineers, whose national strike threat precipitated the rail seizure, are now turning to the wage-pattern strategy used by steel and auto unions.

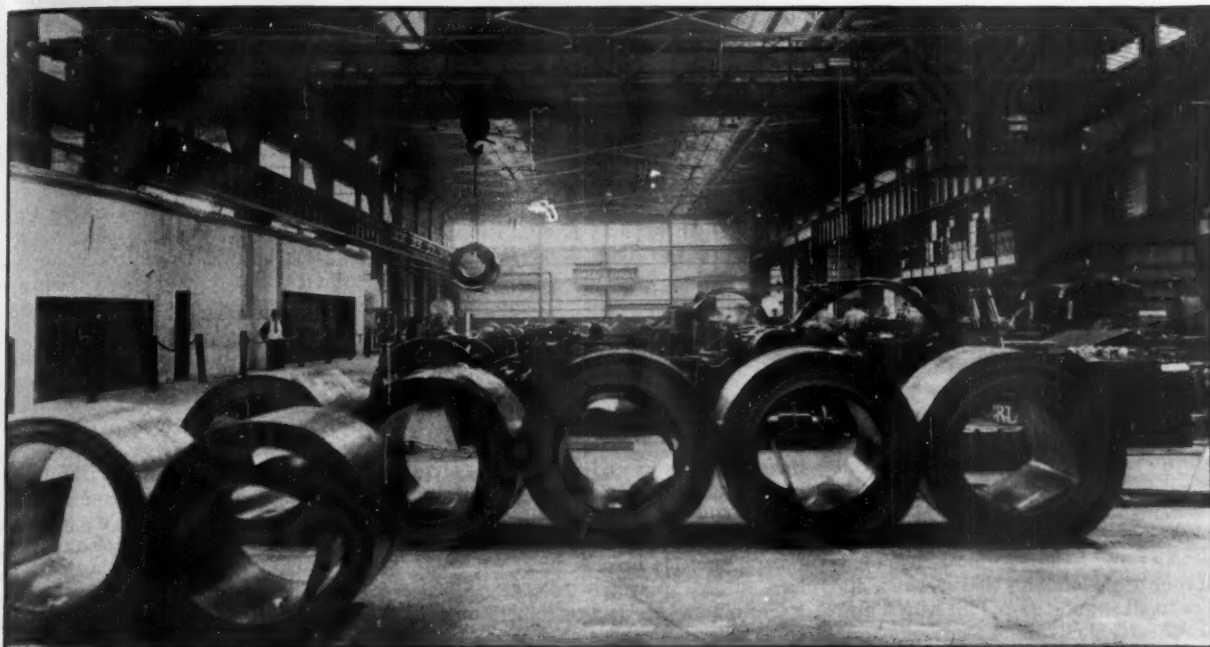
Within a few days after their national settlement, they intend to reopen negotiations with one, or maybe two, individual railroads. Rail labor contracts can always be reopened on 30-day notice. Taught in 1946 and 1948 that they can't strike nationally, they figure they might be able to hang onto the strike weapon against single lines. Gains won from one road could then make a pattern.

•
BUSINESSMEN dealing with the government on international trade are going to be shunted from the State Dept. over to Commerce. That's the outcome of White House arbitration of the long jurisdictional feud.

State is to quit dealing with businessmen on trade promotion, telecommunications, aviation, and shipping. It's to collapse its economic divisions, give up commodity work and financial research.

Commerce Secretary Sawyer takes on these jobs; he's supposed to be consulted at the planning stage of all future trade treaties.

•
Hoffman is setting up special units in the Washington and Paris offices of ECA to work on East-West trade.



This strip, when it comes from out of town, may cost Detroit automakers \$6 a ton more as . . .

Steel Industry Abandons Basing-Point Pricing

U. S. Steel adopts f.o.b. prices; rest of industry sure to follow. Cement companies do, too. Court decision was cause.

A major revolution in industrial pricing methods got under way this week. Steel and cement—two important basic materials—started to shift away from the traditional basing-point pricing system. The new method will be to sell products f.o.b. mill or shipping point.

• **Big Steel's Move**—U. S. Steel Corp. was the first to abandon the basing-point system. (It had also been the first to adopt the modern version of it 10 years ago—BW—Jul. 2 '38, p13). Once again, it was playing the role of an industry leader. Its subsidiary, Universal Atlas Cement Co., broke the ice by deciding to make its pricing change become effective July 7.

That date was significant. It was two days ahead of the effective date of the Federal Trade Commission cease-and-desist order against Universal and 73 other cement producers requiring them to give up the practice of delivered prices. The order was upheld recently by the U. S. Supreme Court; that decision marked the end of the road for basing-point pricing. U. S. Steel Corp. attorneys and others had studied the decision for weeks. Their final conclu-

sion was that compliance was the only possible step.

• **Revolution**—Steel-producing subsidiaries of Big Steel will make their price switch "in the near future," president Benjamin F. Fairless said on Thursday. It will probably take a week or 10 days to get the changeover completed. And by that time the price revolution is expected to sweep over the whole steel industry. Officials of other companies freely admit that they see no other course to follow.

The new pricing method provides, in most cases, for selling steel or cement at prices f.o.b. mill or shipping point—or, if the customer so desires, at delivered prices which include full transportation charges.

This contrasts sharply with the basing-point system. As used in steel originally, there was one basing point (the Pittsburgh-plus system). Later it became a multiple-basing-point system; uniform prices were quoted for delivered products at the point of destination regardless of the point of shipment.

• **Broad Effects**—Producers and customers alike look on the pricing change

as one of the most basic developments in America's industrial history. It will have many broad effects; some will be felt right way, others will be delayed for months or years. Some of the repercussions:

(1) The customer hereafter will always pay the full freight. Heretofore, mills often absorbed part of the freight in order to sell competitively.

(2) Consumers nearest a mill will have a location advantage: Those directly at the mill site will have no freight to pay. Those more distant, of course, will have a haul to pay for.

(3) Local monopolies will be created—sometimes temporarily, sometimes for longer periods—for many mills. Those with enough nearby customers to take all their output will have a fairly easy time; they will be able to beat off outside competition.

(4) Steel consumers who use several supply sources probably will settle on one or a very few. They will tend to buy only from the closest mill or mills.

(5) Variations in list prices undoubtedly will crop up. A mill will cut its list price to get business on a competitive basis—since it won't be able to juggle with freight absorption.

(6) Mills that are poorly situated from a marketing standpoint may have

to think of moving to new locations. Similarly, consumers may have to move nearer a supply source if competitors are more favorably located.

• **Hot-Rolled Sheets**—You can see concrete effects of the price-policy change in this typical case:

Delivered prices for hot-rolled sheets laid down in Detroit have been \$58.20 to \$60.20 a ton. That compares with mill prices at Pittsburgh, Chicago-Gary, Cleveland and Buffalo of \$55 to \$56 a ton. Assuming that mill prices at those producing points remain the same, the Detroit customer will have to pay the actual freight charge in addition. Freight on steel in carload lots to Detroit from Pittsburgh is \$9.20 a ton; from Chicago-Gary, \$8.80 a ton; from Buffalo, \$8.00 a ton; from Cleveland, \$6.80 a ton. So a Detroit customer of a Pittsburgh mill would have to pay \$64.20 to \$65.20 a ton instead of \$58.20 to \$60.20. And the steel mill no longer would have to absorb about \$6 a ton freight if it continued to serve the customer.

Meanwhile, shipments from Great Lakes Steel Co., right in Detroit, would not carry any freight to local customers (beyond the switching charge which applies to all shipments). This would give the Great Lakes mill, a National Steel subsidiary, a big competitive advantage pricewise over all other mills that ship into the area.

• **Automen's Interpretation**—Auto companies reportedly have had the idea that f.o.b. pricing would increase the amount of steel available to them. Mills have been reluctant, as automakers saw it, to absorb charges on shipments from long distances. So steel-hungry Detroiters figure it this way: Now that they are going to pay the freight themselves, they will be able to get more steel from distant points.

But this line of reasoning doesn't jibe with steelmen's thinking. They intend to favor the customers right in their own backyards. Reason: Those are the people who will be their long-time customers from here on out.

• **U. S. Steel's Position**—F.o.b. pricing will be favorable, in the main, to U. S. Steel and its subsidiaries, according to an analysis of their producing-marketing setup. They will be principal suppliers in such areas as Pittsburgh, Chicago, San Francisco, Birmingham—where they operate mills.

They probably will be weakest on the Atlantic seaboard and in Texas and the rest of the Southwest. One solution, of course, is to put up new mills. It's no secret that Big Steel has been pondering for a long time the question of an Atlantic Seaboard mill—anywhere from Norfolk, Va., north to Boston. A mill in the Southwest may also be in the cards.

• **Bethlehem**—Bethlehem Steel Corp. should stand to gain heavily over its

competitors on the East Coast. Its integrated Sparrows Point (Md.) setup is smartly situated to serve many of the major eastern cities. Pittsburgh mills selling into New York City now have to absorb \$3.64 a ton of the rail freight to meet Bethlehem's price.

• **Armco**—Armco Steel Corp. is another producer that should benefit from the price switch. The industry believes that it can sell the entire output of its Middletown (Ohio) and Ashland (Ky.) mills within a 75-mi. to 100-mi. radius. And its hold on the Southwest's market is strong; Sheffield Steel Corp., a subsidiary, operates in Texas, Oklahoma, and Kansas City.

• **Little Fellows**—Some of the smaller steel companies are apt to be hurt—unless they are local monopolies. If they don't have a big market right around them and have to reach out against strong competition in markets where they have to sell, it will be tough on them.

A steel company making specialty types may be able to stand the gaff; also, a company with a strong fabricating subsidiary, such as Lukens Steel Co., will have an advantage.

• **Customers**—All steel customers are not going to feel the price change the same way, either.

A stamping company in Minneapolis, with no nearby steel source, will be at a price disadvantage compared to a stamper in Chicago with several steel sources at his back door. A washing machine company in Iowa may find it harder to compete with washer makers in Chicago or Cleveland for the same reason.

• **Cement Situation**—The price upheaval in steel has the hardest wallop for businessmen—because the steel makers feed one-third of the whole manufacturing industry of the nation. But the spark that

set off the whole pricing explosion came in cement. It was in the now-famous Cement Institute case (BW—Jun.12'48, p74) that the Supreme Court ruled out definitely any sort of basing-point pricing system.

Universal Atlas' action in hewing to the court's decision was followed by the Pennsylvania-Dixie Cement Corp. within 24 hours. Penn-Dixie and Ideal Cement Co. are adopting the same price system as Universal—choice of delivered prices that reflect true freight, or f.o.b. mill prices. Consolidated Cement Co., of Chicago, on the other hand, quotes only delivered prices (which include actual freight, of course). This company does not give its customers an f.o.b. option.

• **Priced Out**—Universal Atlas feels sure that it will now be priced out of several markets in which it used to sell competitively. For instance, its old delivered price to dealers in Kansas City was \$2.56 a bbl. in bulk in carload lots. The new price is \$2.86 a bbl. Companies whose mills are closer to Kansas City will not show so great a differential. Result will be that Universal will lose business in Kansas City.

Universal's former price to New York City dealers was \$2.82 a bbl. Now it's \$2.96. But the increase may not cost the company much New York business, for two reasons: (1) New York's huge demand for cement, and (2) the fact that Universal's mills at Hudson, N. Y., and Northampton, Pa., are as close to the city as the majority of competitors' mills.

And in Boston, Universal may even stand to gain business. The old price was \$3.27 a bbl.; the new is only \$3.31. Universal's Hudson mill is situated closer to the sizable Boston market than the mills of practically all of its big competitors.

Big Day in Property Insurance

On the same date that the trade became subject to federal antitrust laws, New York said it would require uniform accounting methods after Jan. 1. Another headache: too much business.

If you think your business has its troubles, take a look at property insurance. Fire and casualty insurance men today can barely recognize their once-placid trade. They have three main headaches:

• Since July 1, insurance has been subject to the federal antitrust laws—in areas where it is not already regulated by the states.

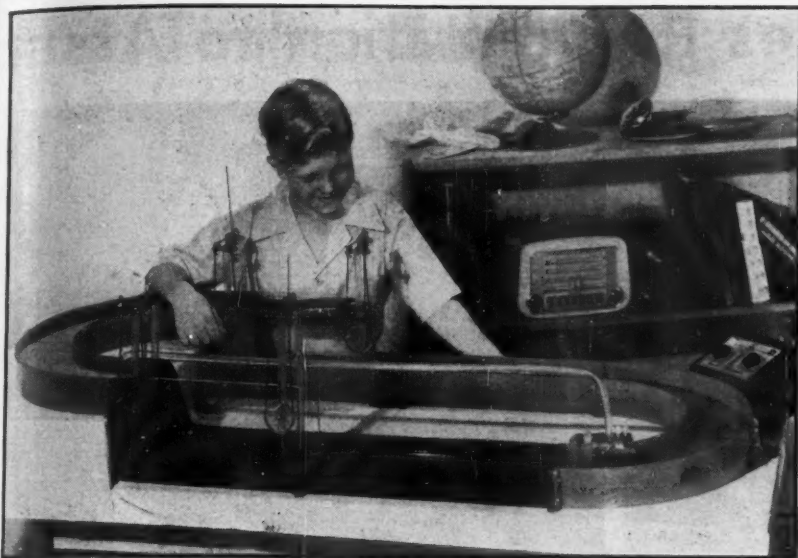
• The companies can't handle all the business that's available—an experience that's annoying as well as pleasant, as any businessman knows.

• Most companies will have to adopt

a uniform accounting system by the end of the year—because New York announced a new rule to that effect last week, and more than 500 companies do business in New York.

• **Bombshell**—Until 1944, insurance had been regulated by the states. Then the Supreme Court flabbergasted the business by deciding it was interstate commerce, and subject to federal antitrust laws (BW—Jun.10'44,p18).

But Congress felt there was room for both state and federal regulation. Congress postponed the application of the antitrust laws, to give the industry time



Tabletop Canal System, Complete With Locks

For boating enthusiasts who want to take their hobby home with them, Hydro-Toys, Inc., of Lewiston, N. Y., has devised this take-apart canal system. It fits on a tabletop, does all the things a regulation canal can do. The sides and locks are molded of Lustron, a Monsanto Chemical polystyrene plastic. The water pump is also

made of plastic. It's run by a 12-volt motor, pumps water through plastic tubing from one level to another. Lock gates and sides are transparent plastic, so that Junior can watch the locks fill up. Gates are opened and shut by a hand-operated pulley system. The lock and canal system can be expanded with additional sections.

to adjust and the states time to sharpen their regulations. Congress said the antitrust laws would not apply where the states were already regulating insurance. Such was the gist of the McCarran Act of 1945, usually known to the trade as "Public Law 15."

• **No Immediate Attack**—Now federal antitrust laws apply in some measure to insurance. The Justice Dept. and the Federal Trade Commission, however, plan no special action in connection with the industry.

It will probably be several years before the line between federal regulation and state regulation is drawn by the courts. No matter what they decide, the insurance business will be more complicated than before. State laws regulating insurance are by no means uniform (BW—Feb. 14 '48, p. 82). Some insurance men are even saying it would be simpler to have the federal government do all the regulating.

• **Too Much Business**—Net premiums for fire and casualty companies rose about 25% from 1946 to 1947. It could have been more, however, if the companies hadn't been limited, by their surplus funds, in the amount of new business they could take on. Here's why:

Expenses of getting business—principally agents' commissions and taxes—have to be paid out of surplus. State

insurance laws require that the premium itself must be put into a reserve fund until it's "earned." For instance, on a three-year policy one-third of the premium is earned at the end of each year. This puts a heavy burden on fire companies, since most of their policies are for three years or longer. But the whole commission (usually about 20% of the premium) must be paid at the beginning of the first year.

If the property insurance companies got more capital they could write more business, because the expenses could be paid from the new funds. But so far they haven't looked for much new capital—the market hasn't been very receptive to stock issues for the last couple of years. Lately things have been looking better (BW—Jun. 5 '48, p. 91). So the Fireman's Fund Insurance Co. of San Francisco has announced plans to raise about \$14-million in new capital.

• **Watching Expenses**—Because they cannot write all the business that is available, the companies have been a bit choosier about the business they do take on. They have also been paying closer attention to the expenses of getting business. Most stock companies and some mutuals write their insurance through agents. For these companies, agents' commissions are the major expense they have to pay in advance out

of surplus before earning premiums. In some areas, and in some lines, fire companies cut commissions they thought were too high.

Insurance agents have been trained to bring in all the business possible. So rejection of some business now is hard for them to understand. Agents have been up in arms about reduction of commissions; they say their own agency expenses are going up. Some of them fear the reduction of commissions that has already taken place is only an opening wedge for more cuts.

• **Accounting Methods**—Regulatory authorities, too, are interested in the expenses of insurance companies. Superintendent Robert E. Dineen of the New York insurance department (the leader among state insurance departments) is one of these. He says that a major problem in passing on fire rates filed by the companies has always been lack of uniformity in expense accounting; despite the fact that most fire companies charge the same rates, they have many different ways of recording their costs.

So, on the same day that federal antitrust laws became applicable to insurance, Dineen announced a uniform system of accounting for all fire, casualty, marine, and surety insurance companies who do business in New York. This system goes into effect Jan. 1, 1949. It is the result of accounting studies carried on since 1945 by the New York department in connection with the National Assn. of Insurance Commissioners. Insurance companies also were consulted.

• **Advantages**—Dineen believes that uniform accounting will provide a foundation for cost accounting in insurance, like that used in other businesses. He says that companies will have a more accurate picture of whether they are charging too much or too little in each of their lines. For the same reason, the insurance buyer will have a better idea of whether he is getting his premium's worth.

For instance, fire companies believe they have been carrying many house risks at a loss. Uniform accounting (Dineen says) will permit them to re-adjust premiums so that this class will pay for itself instead of being carried by other fire insurance buyers.

Most insurance people accept uniform accounting in principle, but would like a longer waiting period before it goes into effect.

Dineen's action is important to insurance companies all over the country. They'll tend to use the New York system in other states where they do business.

• **Blessing in Disguise**—So this is one insurance headache that may pay dividends later on, both to the companies and to insurance buyers.

Industry Pushes Reforestation to Assure Future



LUNCHES FOR BUSINESSMEN are one way the International Paper Co. promotes tree-farming in the South



SOUTHERN LANDOWNER gets some tips from an International "conservation engineer" on how to make his woodlot pay off



AT A BARBECUE GET-TOGETHER for landowners, lumber dealers, and wood-cutting crews, conservation man gives pointers on good forestry practice—including clean cutting, selective cutting, short stumps, good top-salvage, and good conservation



CAREFULLY SELECTED TREES are plainly marked as "seed trees" to be sure that they are left uncut. From the seeds dropped from such a choice parent . . .



TINY PINES grow and take root. The result is natural reproduction; no hand-planting of seedlings is necessary. This is the ideal in scientific forestry



SEEDLINGS, HAND-PLANTED about 4 ft. apart on badly eroded land, stop further erosion at once. Result: in 10 years, a thick stand of young pines

Future Timber Supply

Big lumber, paper companies use modern management methods to prolong forest life. Farmers boost income from trees.

High on the list of the United States' natural resources are its forests. Latest government estimates place our forest resources at 470-billion cu. ft. of timber, growing on 461.7-million acres of commercial forest land (nearly one-fourth of the total land area of the nation).

Unlike our mineral deposits, our forests are a renewable resource; under proper management they can be made to grow as fast as—or even faster than—they are used up. This we have never done, however—although we are closer to it today than ever before.

• **Gap**—In the decade from 1909 to 1918 the drain on timber (amount cut, plus losses from fire, insects, disease, storm) averaged 26-billion cu. ft. a year; new growth averaged only 6-billion cu. ft. But the gap has narrowed steadily. In 1944 (latest figures available) the drain was 13.7-billion cu. ft.; growth 13.4-billion.

But for sawtimber (trees large enough to yield logs for lumber) the picture is much less encouraging. In 1944, the drain was 53.9-billion board feet; growth, only 35.3-billion.

• **Must Be Closed**—Major timber producers have realized for years that forest growth must be brought in balance with drain; otherwise we will become a "have-not" nation in wood. So they have been devoting time, money, and manpower to scientific forest management.

The scope of this work is shown by a "Report to the People of the South," being prepared this week by one of the large units in the industry: International Paper Co.

• **Buys Wood**—A paper mill requires perpetual wood supplies near at hand. International has eight such mills in the south. It cannot supply its pulpwood needs solely from its own forest holdings; it must buy most of its wood from other woodland owners (page 6).

So, in this report, International will tell farmers and plantation owners the benefits they can reap by planting, cultivating, and harvesting "woodland crops."

During 1948 the company will distribute 3-million pine seedlings free of charge to woodland plot owners. These will be planted in cutover areas; in 20 years they will be large enough for commercial harvest.

• **Experts**—International also has placed a trained "conservation engineer" in each of the nine southern states in which it operates. These men will seek to improve forestry practices on land not owned by the company; demonstrate the

advantages of "harvesting" rather than "mining" our forest resources; teach at boys' forestry camps; spread the gospel of scientific forest management.

The pattern evolved by International is not unique. Rather, it is typical of the work being done by major timber operators in all sections of the country. Weyerhaeuser, Potlatch, St. Regis, Crossett Industries, Uria Lumber, Nekoosa-Edwards, Simpson, Crown-Zellerbach, Mead, Gaylord (the list could be expanded 20-fold) all have made their contributions to this program of industry-directed reforestation.

• **New Trees**—Planting of seedlings, by hand or mechanical means, is widely used in the South. In the 1945-46 growing season alone, the forest industries of this region purchased 10.5-million seedlings; only lack of supply prevented them from buying and planting millions more.

But the supply is rising rapidly. In the season of 1947-48, southern state forest nurseries produced 98-million seedlings. In 1948-49, planned production will be 205-million.

• **Pioneer**—One of the early leaders in this work was Gaylord Container Corp. A predecessor lumber company started the practice years ago; transplanted as many as 12-million seedlings a year from its own nursery. Gaylord's forests near Bogalusa, La., comprise the largest single project of hand-planting trees in America.

The operations of the Uria Lumber Co. of Louisiana are one of the oldest examples of successful industrial forest management. Merchantable trees are marked for harvesting; nothing is left to chance. This operation now relies exclusively on natural reproduction; no artificial planting is necessary. This is the ideal in forestry.

• **Western Progress**—Outstanding progress in forest management has been made on the Pacific Coast. There the West Coast Lumbermen's Assn. (representing the Douglas fir industry) and the Western Pine Assn. are working with government agencies to solve forest problems. And the work there is important, for the region contains one-third of the nation's stand of saw-timber.

Private industry here started years ago to improve forest practices. These practices have since been embodied in forest-practice codes, adopted not only in West Coast states, but in most states where timber is a substantial "crop." These codes may cover everything from fire protection to taxation measures de-



RESULT of scientific woodlot management: A tree-farm in the South that brings a regular cash income for its owner

signed to encourage reforestation and sound cutting practices.

• **Natural Reproduction**—In the Douglas fir region, 90% of the areas now being logged are reproducing by natural means.

To take care of the 10% of cutover land which does not reforest naturally, forest landowners in the Pacific Northwest started the Forest Industries Tree Nursery at Nisqually, Wash., in 1941, with an investment of \$100,000. During the 1947 planting season this nursery furnished enough seedling trees to reforest artificially 45,000 idle acres in western Washington and Oregon.

• **45 Years Ago**—One of the first companies to develop better forest practices was Weyerhaeuser Timber Co., largest operator in the Douglas fir region. In 1903 it established a system of fire patrols. Since then it has branched into all phases of scientific forest management. It has planted some 9-million trees on 18,000 acres.

Depending largely on how much stock it can obtain from Nisqually, it is now planting 2.5-million seedlings a year. Cost: \$15 an acre.

• **Cooperation**—An example of company-government cooperation is the contract between Simpson Logging Co. and the U. S. Forest Service. Simpson owns 160,000 acres of second growth timber; the trees, for the most part, won't be ready for market for 50 years.

But adjacent to its private holdings is Olympic National Forest; this contains 110,000 acres of timber, much of it mature, some of it overmature. So Simpson will log the national forest—but un-

der definite restrictions; these cover cutting, fire control, planting new stock where needed, and other activities.

Simpson also has agreed to put its own holdings under the same strict management provisions.

• **Wisconsin Comes Back**—Half-a-century or more ago, Wisconsin was a major producer of lumber and pulpwood. When the wood in this and adjoining states was gone, timber companies moved out—to the West Coast for lumber, to the South for lumber and pulpwood. Northern Wisconsin was left desolate; its cutover land was rapidly overgrown with brush, scrub pine, all-but-worthless aspen.

Now northern Wisconsin forests are staging a comeback; forestry programs such as that sponsored by Nekoosa-Edwards Paper Co. are largely responsible.

• **Nekoosa's Program**—This paper manufacturing company was buying pulpwood from farmers near its mills at Port Edwards and Nekoosa. It sent its own foresters to teach farmers how to grow and harvest this crop. By 1925, however, it was apparent the company could not rely entirely on this method.

So it began buying cutover land. It now has more than 110,000 acres, is still adding at least 3,500 acres a year. Under scientific forest management, part of this land is restocking itself; other large areas have been artificially replanted. Planting stock is obtained from

the company's own nursery, which today has close to 4-million young trees.

• **Coal Company's Forest**—Scientific woodland management isn't confined to lumber or paper-manufacturing companies. In Raleigh and Fayette counties of West Virginia, the New River Company has found it pays. It is among the large coal operators of the state, and needs wood for mine props.

It started to buy forest lands in 1916. Today the company owns 41,000 acres. It not only grows all the timber it needs, it also harvests enough to operate a lumber business. From its acres came 5-million bd. ft., the highest grade white oak and other hardwoods for war purposes.

• **Trained Men**—Important indicator of industry's growing interest in forest management is the ever-increasing number of trained foresters on company payrolls. Back in 1930 less than 400 were employed by private industry, the Society of American Foresters estimates. By 1940 the number had risen to 1,000; today there are more than 2,500 foresters so engaged, and industry demand for competent graduates of forestry schools continues unabated.

But the major timber owners control only about 18% of U. S. forest land. Some 30% is in small farm woodlands; another 27% is in private holdings of 5,000 acres or less; the remaining 25% is in public ownership. If scientific forest management is to produce results,

then owners of small timber holdings must be enlisted.

• **Campaign**—Before the end of 1948, a campaign to achieve this will be under way in several leading timber-producing states. The drive is being led by American Forest Products Industries, Inc.

A.F.P.I. was organized in 1941; it is supported by leading organizations in the lumber, pulp and paper, plywood, and other forest-dependent industries. A.F.P.I., aided by state representatives of the U. S. Forest Service, started its newest campaign in Alabama, expects to extend it this year into one or more states in New England, the Great Lakes area, and the Pacific Coast.

It is directed at small owners, especially farmers; it aims to show them how they can make their little woodlots produce an annual cash crop. Statistics on the Alabama situation illustrate possibilities of such a campaign.

• **Only 5% Today**—Some 40% of Alabama farmland is in woodlots, but they contribute only 5% to farm income. By proper management, this percentage can be increased markedly. Farmers will benefit; so will Alabama's 3,000 wood-using plants.

A.F.P.I. cites one case of a farmer who practiced proper fire control, made selective cutting of timber, left good seed trees so his tract would restock itself naturally. In six years he took \$2,400 worth of wood products from 104 acres, and he has today as much merchantable timber as he had in the first place. By contrast, a farmer owning an adjoining 120-acre woodland sold all the timber for \$480. That was eight years ago. Today he has nothing but 120 acres of brush.

• **Three-Pronged**—A.F.P.I.'s "cash-crop program" is the third phase of its long-range "Trees for America" drive. Two other phases are already well advanced:

(1) An antifire education campaign. "Keep America Green." Started in 1941, this campaign is organized by states. So far, 23 states are taking part.

(2) The "Tree Farm" movement, also launched in 1941. Tracts that are properly managed and protected for continuous production are certified as "Tree Farms"; their owners usually receive identifying display signs, local publicity, and similar recognition. The movement is now organized in 20 states; over 15-million acres are qualified as Tree Farms.

• **Government Interest**—It goes without saying that the U. S. Forest Service is vitally concerned with our timber supply. Its management of our national forests (which contain a third of our existing sawtimber) has developed forest management methods designed to yield continuous forest crops for the future. The Forest Service regards small woodlands as "one of the toughest phases of the nation's forest problem."



Truck-Trailer Speeds Grain to Brewery

Tivoli Brewing Co. of Detroit is all set to keep hot-weather beer drinkers up to their noses in foam. This specially built truck-trailer combination hauls 500 bushels of grain from railroad siding to brewery in one scoop. A pneumatic loading device whooshes the trailer tank full in 20 minutes. A 60-hp. Hercules engine drives a

pump which creates a partial vacuum, drawing the grain from freight car to tank. At the brewery, a gravity chute unloads the grain mechanically. The trailer body was made by Fuller Co., Catasauqua, Pa., the chassis by Fruehauf Trailer Co., Detroit, and the power unit by Federal Motor Truck Co., Detroit.

Alcoholism Plagues Industry

It's a big headache, all right—maybe a \$1-billion one. But until recently no one knew how to tackle it. Now du Pont, Eastman Kodak, and others are developing programs.

"A company that says it doesn't have any problem with alcoholism among its employees doesn't know what it's talking about."

• **New Attitude**—That flat statement comes from a man who should know. He is Dr. John L. Norris of Eastman Kodak Co.'s medical department, an outstanding authority on the problem of alcoholism in U. S. industry. His words and his work reflect a new attitude toward the whole problem that is gaining headway among businessmen.

This new attitude was summed up last week with the appearance of "The Proceedings of the First Industrial Conference on Alcoholism," published by the Chicago Committee on Alcoholism (\$1). The brochure comprises the speeches, papers, and panels heard by the 400-odd industry representatives who attended the committee's conference in March—the first national gathering of its kind in the U. S.

• **Alcoholism Is a Disease**—The keynote of the conference was expressed by Dr. Robert E. Maupin, of the Keeley Institute: "To industrialists I offer this suggestion—treat your alcoholic employees as sick people, give them the same consideration you give those who suffer from other diseases. You have an investment in each and every employee. Protect that investment and you will profit."

How extensively has this view taken hold in business? It's hard to say. Many businessmen of the old school still take what has been called the "we fire 'em" view.

• **Eastman and du Pont**—But many businessmen have come to think differently. Possibly the best examples of the new trend are provided by Eastman and E. I. du Pont de Nemours & Co.

At Eastman, Dr. Norris has worked with Alcoholics Anonymous groups; the company also helps support the Rochester Committee on Alcoholism. Eastman's solicitude has paid off in terms of rehabilitated lives and families.

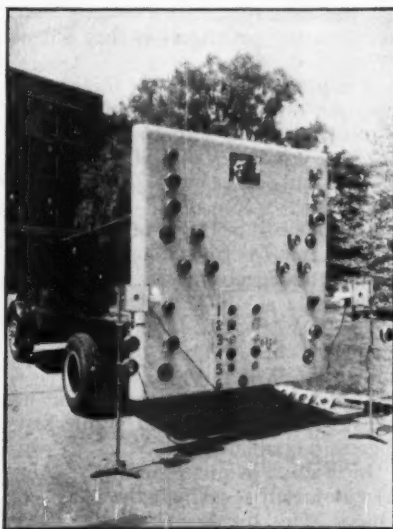
The same goes for du Pont's work. There Dr. G. H. Gerhmann, the medical director, has carried out a similar program. Nine AA units have been set up near du Pont plants, with encouragement from the company. Some 100 employees have gone to these units; alcoholism has been arrested in about 65 cases.

• **Progress**—A Business Week survey shows that while the record is pretty spotty, other companies are following

along. More and more companies are working with AA groups; some are even taking AA people into their personnel departments. Better yet, several companies have undertaken basic research among their employees to shed some light on the whole obscure problem. Allis-Chalmers Mfg. Co. has such a project under way; so have two large steel companies.

But many companies still report "No problem here." This raises the question: How much of a problem is alcoholism to industry?

• **Unexplored Territory**—That's precisely where the Chicago Committee on Alcoholism and other similar groups can do a valuable job. For the simple fact is that no one really knows the answer to that question—just as no one can ex-



Testing Lights

New light on truck lights is expected from General Electric Co.'s mobile test setup. Working with the Society of Automotive Engineers, G.E. technicians mounted twenty-odd lights of various sizes, colors, and intensities on a panel. The operator at the porthole turns on the lights singly or in combination, while experts view them—day and night—at distances up to 500 ft. Purpose: to help develop adequate standards—covering intensity, size, and location—for truck lighting.

To help out, G.E. engineers developed a unique test-lighting gadget: red or amber lights adjustable in diameter from two to eight inches, capable of intensities from 5 to 500 candlepower at will of operator.

plain fully why alcoholics must drink, or what happens to them physiologically when they do.

The authorities even disagree on whether or not alcoholism in the U. S. is on the increase. Less, if anything, is known about alcoholism in industry. A big question mark hangs over the size of industry's annual bill for such intangible losses as time out, sick benefits, and accidents, due to excessive drinking—and hangovers.

• **It Costs a Lot**—Some idea of what it costs, however, can be gathered from random notes out of the Chicago committee's handbook:

• There are roughly some 3.5-million alcoholics in the U. S. Of these, some 1.3 million are regularly employed—or about 3% of the total employment in industry today. It is figured that the average employed alcoholic loses some 22 days each year from his job, which adds up to more than 28-million work days lost annually throughout all industry. Estimates put the loss in dollars and cents at about \$1-billion a year.

• One firm tried to pin its alcoholism problem down more closely. It figured that 2.63% of its nearly 14,500 employees had lost 478 days in one year through alcoholic indulgence. On top of this the firm piled 2,209 days for disciplinary action. And this didn't take into account loss of efficiency because of hangovers, or other "unseen costs."

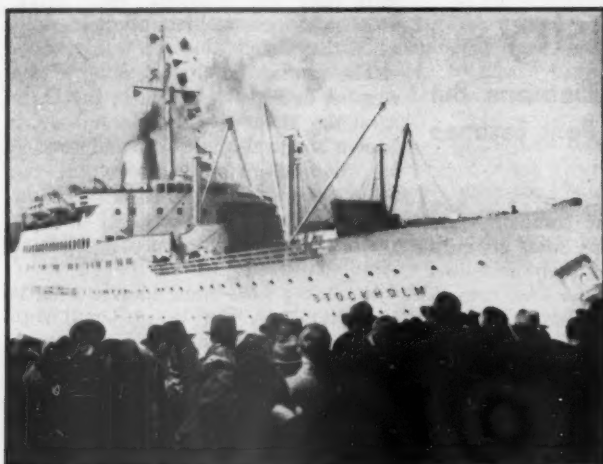
• The cost of replacing an alcoholic employee runs high.

• **Kid Gloves**—The doctors, psychiatrists, and other experts at the conference were also unanimous on still another point: If you decide to do anything about alcoholism in your company, handle the problem gingerly.

Company officials—even the company doctor—can't approach the matter directly. Several of the experts agreed that until the AA's came along, with their peculiarly personal methods, there was no way to handle the problem.

• **How to Go About It**—But there's a caution for businessmen here, too: You can't take on the AA as a kind of professional addition to your organization. The AA frowns on any of its members setting up professionally to do nothing but work with other alcoholics. So when an AA joins the personnel staff of any company, he takes on a regular department job. His AA work is extra-curricular or it has no value.

If you want to do something, the Chicago committee would have you: (1) give medical attention to an employee who is frequently absent; (2) have a competent personnel officer analyze the case, if alcohol is a factor; (3) understand above all that alcoholism is a disease—not a moral lapse; (4) hospitalize the case if necessary, without stigma or penalty; (5) introduce the employee to the AA's.



SHIPS, like Swedish-American's new 11,000-ton Stockholm, and . . .



PLANES, like Pan American's clippers, are enjoying a . . .

Boom Year for Transatlantic Travel

Ship and airlines jammed with reservations as 1948 seems to be best for foreign travel since 1930. Resorts at home slump.

Men in the transatlantic travel business had reason to look smug last week. July 1, traditionally a day of reckoning in their trade, brought these giddy estimates:

(1) The year 1948 looks a cinch to be the best for across-the-Atlantic travel since 1930, the record high.

(2) It's a steady boom. Already next year looks still better, and capacity mid-summer business, at least, should continue through 1951—barring war. So there is a rush to get more ships and planes into service by next summer.

• **Shadows**—Travel experts are not all acting smug, however. Many see shadows on their bright prospects. For example, one big shipping line says that a sudden, unexpected drop in bookings could dump the company into the red. Current profits are due to capacity operations—fare increases have not kept pace with rising costs.

United States Lines, for instance, estimates its operating costs at 125% above prewar, compared to fare increases of 63%. The first-class minimum to Europe on the America is \$325 now against \$198 minimum prewar.

The line owns no ships, is strictly an operator now. It recently applied for a government subsidy, such as most foreign lines have had for many years. Without one, it says, it cannot buy back the liners America and Washington, which it sold to the government during the war.

• **The Airlines**—Domestic airlines lament that the most significant effect of the travel boom may prove to be the entrenchment of foreign airlines with the American flying public. They figure it this way: Demand for transatlantic

travel is greater than in any prewar year, but the steamship lines can carry only half as many passengers as they did in 1939.

The painful angle is that foreign airlines are toting an increasingly greater percentage of this surplus. In an average June week, they carried 39% of the business this year against 27% last year—a hefty rise.

• **Tough Job**—For the passengers, transatlantic travel is frustrating. It's an extremely tough job for the average businessman to get to Europe—and back—when he wants to. It looks as if it's going to continue to be tough for several years.

• **Breakdown**—Here is the eastbound booking picture at Cunard White Star, biggest transatlantic carrier:

First class: Nothing until the Aug. 11 Mauretania sailing, the Aug. 14 Queen Mary, the Aug. 21 Queen Elizabeth. Even then you'll have to be lucky, have to take pot luck—probably share a room—and have to apply right now. By the Sept. 1 Queen Mary sailing, the line expects to have more space.

Cabin class: As tight as first class until September; 70% capacity in September; 50% to 60% throughout the fall and winter until March; capacity again by the end of April, 1949.

Tourist class: Booked to the teeth through September and most of October; 70% to 80% during November-December; at capacity again by next Mar. 1.

Applications for all classes for next year's eastbound sailings are already streaming into Cunard offices. The line has counted 2,000 for first class, 1,000 for cabin and 4,500 for tourist.

Cunard's westbound bookings this year are as tight as eastbound, with the natural difference that the real squeeze comes three months later, September-October.

• **The Airlines**—Here's a sample of the airline booking situation:

Last week American Overseas Airlines was "nearly sold out," eastbound, for a month. A.O.A. can probably get you back all right any time in the next six weeks.

Pan American Airways can give eastbound applicants "immediate confirmation" soon after July 15, general sales manager John E. Muhlfield says, and "might even be able to take care of you now."

A foreign carrier, Sabena-Belgian Air Lines, still has some westbound space available in September, but "only to people who flew over with us."

• **Take a Cruise**—If your business in Europe is really urgent and your strings all break (or you won't fly), here's a last-resort tip: take a cruise. Both Thomas Cook & Sons and American Express, big guns of the organized-tour field, still have a few vacancies for European tours starting in August. Like other agencies, they buy up big blocks of space months in advance; in these days they're naturally not afraid to overbuy.

At least five different kinds of travelers are bidding for eastbound space in unprecedented numbers: tourists; businessmen; diplomats, especially U.N. officials; immigrants anxious to see the old folks for the first time since before the war; and Marshall Plan buyers and suppliers.

• **Greatest Since 1930**—American Express officials estimated that at least 250,000 tourists will sail to Europe from America for fun during 1948. This compares with the great pilgrimage of 300,000 in 1930. The travel agency



Dilemma on Wheels

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The two-pipe vacuum steam heating systems used in the church and school—the last word when first installed—were wasteful when compared with present-day standards. The heating modernization program proposed by the Very Rev. H. C. McDowell and the Building Committee called for conversion to a "Controlled-by-the-Weather" Webster Moderator System. The smaller convent building was equipped with a separate Webster Type "R" Vapor System.

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also estimates that a total of between 360,000 and 375,000 persons will make the Atlantic crossing, 200,000 of them during the "season." Of the total, nearly 30% will fly.

Businessmen who are lucky enough to be able to plan their trips ahead would clearly be well advised to skip "the season." But that's not so easy as it used to be, since it now starts Apr. 1, runs through Oct. 1, compared with June through August prewar.

• **What's It Like**—What's Europe going to be like after you get there?

July or even August hotel accommodations are going to be hard if not impossible to get at this date in Stockholm, Amsterdam, Copenhagen, the Hague. They will be even tougher in London, which has the Olympics in July, and Edinburgh, host to the Second Annual International Festival of Music and Drama, Aug. 22 to Sept. 12. Paris, Brussels, and Switzerland are likely to have more room, according to American Express reports.

The agency has good news from all those countries and capitals: "Rail conditions are improved greatly; new and reconditioned hotels are reported at most resort centers; the food situation is improving."

Hotel rooms are usually available on short notice "in the country" even when they're sold out in European capitals. The smaller towns offer more and better food, too—frequently fresh instead of powdered eggs.

• **Bargains Possible**—Luxury goods like silk shirts and dresses, hand-tooled leather, fine silver are plentiful in France and Italy, at far lower prices than at home. The new French franc rate (305 to the dollar) makes bargains possible. (Congress recently raised the exemption on duty-free goods Americans may bring home to \$400; it's been \$100 since 1897.)

You'd be smart to take your own liquor if you go to Britain. A Thomas Cook official estimates that 70% of Britain-bound passengers are doing it.

• **Slump at Home**—While transatlantic travel wrestles with all the problems of boom demands, the domestic travel industry is frustrated by the most disappointing season in years.

Resorts were really primed to go this summer. But what travel agents term "the worst spring weather in a generation" made the early openings chiefly a process of accepting cancellations. And then a cold and rainy June knocked off resort reservations 15% to 20%.

Of perhaps 35-million Americans who have vacations to take this summer, about 11-million have already taken them—if only by staying at home. The resorts can't recapture this business. Their only hope for ending up with a fair-to-middling year after all is a summer which lingers far into the fall.

Prices Move Up

Increases posted for wide list of manufactured goods. Among them: tires, electrical appliances, autos and parts.

All over the industrial front, price increases exploded like a string of firecrackers this week and last.

These new outbursts are part of a new inflationary upward push; most trail wage increases and other rising costs.

• **Index Moves Slowly**—Boosts in food prices had brought the Bureau of Labor Statistics' wholesale commodity index up to 166.7 on June 26, a new postwar high. Industrial prices meanwhile had been inching up so slowly that their effect on the total index was negligible.

But the rash of boosts in many lines of business effective on or after July 1 will almost certainly kick the index up a few more notches. And, if all industrial prices were quoted wholesale and were taken into account, the wholesale price indicator would go even higher.

• **Rubber**—U. S. Rubber Co. set the pace in the tire industry by announcing an increase in prices effective July 1. It hiked passenger tires about 6% and truck tires 5%. Farm tractor tire prices went up 6% to 7½% depending on size; inner tubes, 6%.

Within a few days, these quotations were matched by Goodyear, Seiberling, General, and Dayton. Others were expected to join the parade before the end of this week. The biggest increase was a 10% boost in industrial pneumatic tubes by General.

Trade reports were current that Sears, a major competitor in the replacement-tire field, would also jack up prices. Prices in the new catalog, out a fortnight ago, are already about 5% over quotations in the preceding (spring-summer) catalog.

Tire makers said the higher prices were necessary because of the higher costs of labor, raw materials, transportation—and other factors.

• **Durable Goods**—Other price increases which drew top attention:

Westinghouse raised some electric appliances by 3% to more than 7%.

Ford tractors went up from \$1,190 to \$1,230 f.o.b. Detroit; boosts in Ford heavy truck prices, by 5.4% to 9.3%.

Kaiser and Frazer cars were boosted by \$23 to \$169.

General Motors made adjustments on an individual-item basis for replacement parts, with a weighted average of the increases coming to about 5.9%.

Allis-Chalmers lifted power equipment 5% to 10%.

Timken Roller Bearing Co. tacked 5% onto steel prices.



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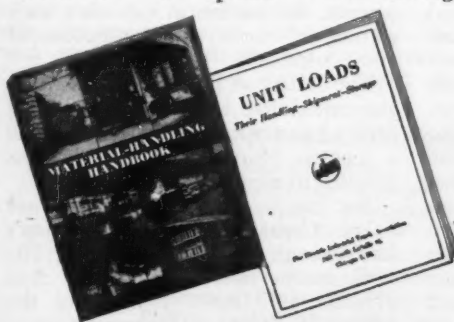
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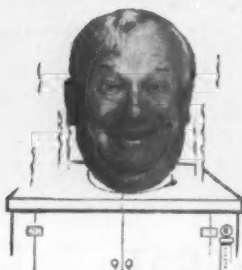
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Carloadings Forecasts Across the Country

Regions	Actual Car Loadings Third Quarter, 1947	Estimated Loadings Third Quarter, 1948	Per Cent Change
New England	132,234	132,294	+0.1
Atlantic States	916,592	934,352	+1.9
Allegheny	1,135,761	1,212,144	+6.7
Ohio Valley	1,023,185	1,061,031	+3.7
Southeast	908,153	961,764	+5.9
Great Lakes	689,866	748,052	+8.4
Central Western	319,551	340,261	+6.5
Midwest	1,024,354	1,059,037	+3.4
Northwest	841,385	848,737	+0.9
Trans-Missouri-Kansas	519,094	492,305	-5.2
Southwest	627,430	618,966	-1.3
Pacific Coast	399,542	437,058	+9.4
Pacific Northwest	276,934	292,373	+5.6
TOTAL	8,814,081	9,138,374	+3.7

How Shippers See Outlook

Their predictions for third-quarter railroad car-loadings run 3.7% ahead of a year ago, over-all. Drop expected in several farm commodities, but it's offset by rise in industrial goods.

Railroad carloadings, traditionally a barometer of general business, will run about 3.7% ahead of last year in the third quarter of 1948. Every region in the country will show an increase except the Southwest and the Trans-Missouri-Kansas area.

That's the way things looked this week to the 13 Shippers Regional Advisory Boards of the Assn. of American Railroads. These boards try to call the shots on future traffic once each quarter to assist the roads in handling the demands for cars. Their score has been high.

• **By Commodities**—According to the boards' forecasts (table, above), loadings of 32 principal commodities in the third quarter will add up to 9,138,374 cars. This compares with 8,814,081 actual car loadings in the same period last year.

The boards look for a drop in some agricultural commodities this quarter. Grains will be down 6.2%, with 522,584 carloadings in 1948 against 557,086 in 1947. (This is the main reason that total loadings will run behind last year in the Southwest and Trans-Missouri-Kansas territories.) Fresh fruits (other than citrus) will be about 8% under 1947. Poultry and dairy products will be down 7.5%, livestock 5.9%, flour and other mill products 4.5%.

But the increase in industrial commodities and manufactured goods will more than offset the drop in farm products. The boards expect loadings of coal and coke, the biggest single item on their list, to rise from 2,528,780 in the third quarter of 1947 to 2,686,767 in the 1948 period, a gain of 6.2%. Automobiles and trucks will be up 5.4%. Gravel, sand, and stone—a big item—will gain 10.1%. Iron and steel will be about 6% ahead of last year.

• **Car Supply Easier**—Despite the heavier traffic, shippers won't be bothered so much by car shortages this summer as they were last year. The demand for cars is somewhat more evenly distributed this time, which will make it easier for the roads to handle. And, more important, the carriers at last have been getting delivery on a hefty amount of new equipment.

The American Railway Car Institute announced last week that carbuilding finally has topped the target of 10,000 a month. During June, 10,387 new freight cars were delivered.

But the freight car problem is not licked. Carbuilders say that they don't have enough steel to maintain the 10,000-a-month rate in the future. And Director J. Monroe Johnson of the Office of Defense Transportation is gloomier than ever about the prospects.

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STATES



CRITICAL AREA: The Colorado River is the lifestream for seven states. So the...

Water Fight Rages

Battle between Arizona and California is in a deadlock as Congress closes. Both want more water; both know their future is involved. Warren's nomination gives struggle political tinge.

The Colorado River fight has cut a chasm as deep as the Grand Canyon across a group of states battling for the use of its waters. Leading contenders are Arizona and California.

• **Political Fire**—Repercussions from the fight will be heard in the political campaign this year. Nomination of California's Gov. Earl Warren as G.O.P. vice-presidential candidate brought this comment last week from Arizona's Rep. Richard Harless (Democrat): "Knowing Warren's attitude on Colorado River water matters, it is obvious that Arizona and all the other Colorado River basin states must line up against this attempt by California to dominate the West."

The battle has been raging some 25 years. Some phases of it have been before Congress for a year now. California, backed by Nevada, wants to toss the dispute to the Supreme Court for a decision. Arizona, backed by Colorado, New Mexico, Utah, and Wyo-

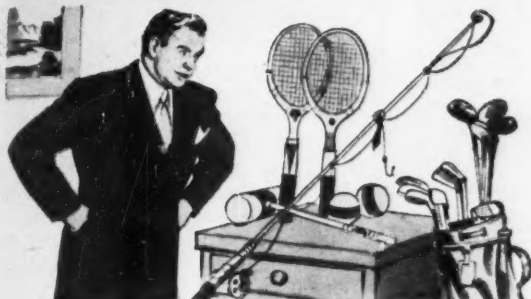
ming, is fighting that proposal tooth and nail. Arizona's team thinks that California aims to tie up the waters in long litigation—at the same time increasing its use of the water and thus establishing prior claim. California stoutly denies this.

• **Not Enough Water**—Basically, the trouble is that there just isn't enough water to meet the states' ever-growing demands. Here's the way the river water adds up:

Left alone, the Colorado River annually discharges an average of 17,720,000 acre-ft. at the international boundary, according to the best estimates of the U. S. Bureau of Reclamation (an acre-ft. equals about 43,560 cu. ft.). The U. S.-Mexico Treaty of 1944 (BW-Mar.17'45,p31) guarantees Mexico 1.5-million acre-ft. annually. That leaves an average of about 16.2-million acre-ft. for U. S. use.

• **The Law**—Laws governing that use are fourfold: the Colorado River Com-

FOR A HAPPIER, HEALTHIER SUMMER



1. Choose the outdoor exercises that are best for you.

Summer weekends and vacations are ideal times to enjoy healthy outdoor exercise. You should, however, be careful not to *over-exercise*.

The businessman in the middle years of life who works in an office all week and over-exerts on weekends may do himself more harm than good. So choose activities that are suitable for your age. Better still, see your doctor for advice about the exercise you can enjoy safely this summer.



2. Follow common sense rules for safety in the water.

Swimming is excellent exercise, for you use nearly every muscle in your body—but every swimmer should remember a few precautions.

It's best to swim where there are lifeguards, as even the strongest swimmer may suffer a cramp and need help. After a full meal, it's wise to wait two hours or so before you go in the water; and prior to diving, find out if the water is deep enough for safety.



3. Be careful about getting your summer sun tan.

Sunburn can be painful and serious. For a safe tan, doctors usually recommend starting with a short period (about 10 minutes), and gradually lengthening the time of exposure.

While most sun tan oils or creams help you tan safely, you may still get a sunburn if you stay too long in direct sunlight. Over-exposure to the sun, especially when you are exercising strenuously, may also lead to sunstroke, or heat exhaustion.



4. Remember that many summer hazards can be avoided.

A bad case of poison ivy can spoil your vacation, so learn to recognize this plant, and stay away from it. If you give prompt attention to cuts and bruises, you can help prevent the start of infection.

In spite of all your precautions, accidents may still occur, so it's wise to have a well-equipped first aid kit available. In addition, following the rules of good health will also help you to a healthier summer.

To help you enjoy your summer, Metropolitan has prepared an envelope of summer health suggestions. It includes leaflets on First Aid and vacation hazards. Send today for your envelope of Metropolitan's "Summer Health Suggestions," 78-S.

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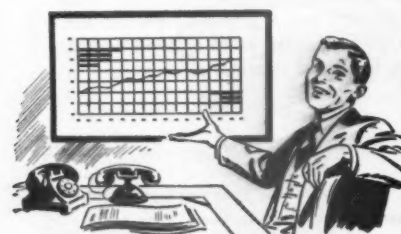
TO VETERANS—IF YOU HAVE NATIONAL SERVICE LIFE INSURANCE—KEEP IT!



"Today, research holds the key to competitive advantage. In Massachusetts I get unsurpassed research facilities."



"Consultant firms in every phase of industry solve production problems, analyze competitive products, help me develop new and better products."



"Even small business here can tap scientific talent no giant corporation could hire. That's why I 'Make It In Massachusetts'."



"Bay State control laboratories, by test and analysis, keep my product quality high, insure that substandard goods never reach the consumer."



"Outstanding universities and technical institutions make Massachusetts the world's foremost training ground for engineers."

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- ① SKILLED, COOPERATIVE LABOR
- ② UNEQUALLED RESEARCH FACILITIES
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An illustrated book will give you a wealth of factual material on Massachusetts as an industrial location. Write: Massachusetts Development and Industrial Commission S-Rm. 407B, State House, Boston 33, Massachusetts.

part of 1922; the Boulder Canyon Project Act of 1928; the California Water Limitation Act of 1929; and the Mexico Treaty.

The Colorado River compact in section III (a) allocates the water for "exclusive beneficial consumptive use" as follows: 7.5-million acre-ft. a year to the upper basin (used by Arizona, Colorado, New Mexico, Utah, Wyoming); 7.5-million acre-ft. to the lower basin (used by Arizona, California, Nevada, New Mexico, Utah).

Section III (b) of the compact gives the lower basin the right to increase its use of the waters by 1-million acre-ft. a year—bringing the total to 8.5-million acre-ft. It's in the lower basin waters that the fight is at the boiling point.

• **Present and Authorized Use**—Present use of the 8.5-million-odd acre-ft. available from the lower basin breaks down like this: California, 3-million acre-ft.; Arizona, 1.5-million acre-ft. (California puts Arizona's use closer to 2.5-million); Nevada, 50,000 acre-ft. That leaves 4-million acre-ft. untouched. This 4-million acre-ft. is the main battleground.

Contracts already made by the Interior Dept. call for eventual delivery of all the lower basin's water under III (a) and III (b). Five California compacts, signed 1930 to 1934, total 5,362,000 acre-ft.; Nevada made two compacts in 1942-1943 for 300,000 acre-ft.; Arizona contracted in 1944 for 2.8 million acre-ft., plus half of any surplus waters unapportioned by the compact. Total—about 8.5-million acre-ft.

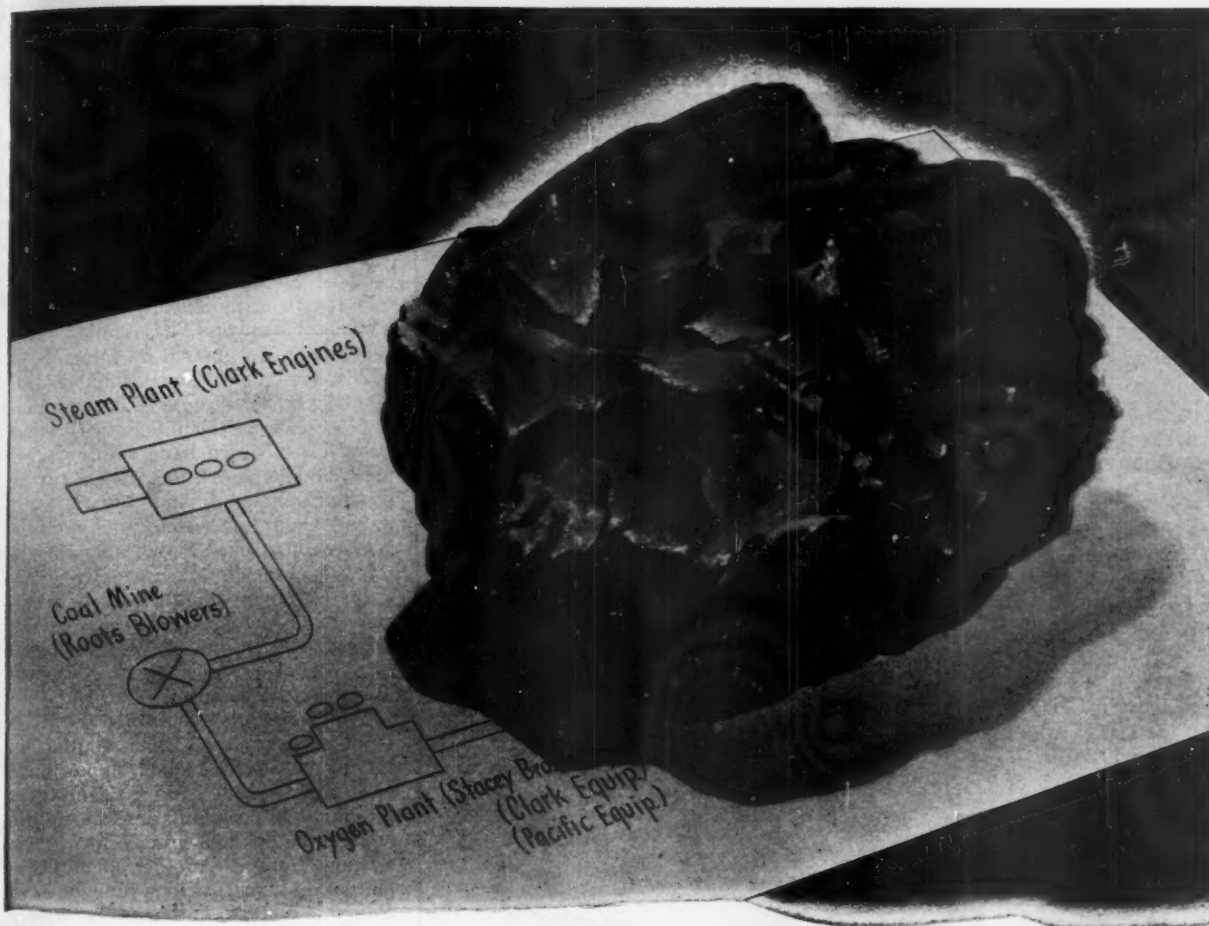
• **More Wanted**—The lower basin can take care of that amount all right. The catch is that projects are afoot that would bring requirements per year to 9.1-million acre-ft. for the upper basin, and 11.1-million for the lower. California could use 5.6-million acre-ft. on present and authorized projects; Arizona has plans that could up consumption to 4-million. And there's just not that much water.

Neither side wants any change in the existing laws. Both sides are 100% for them as they stand. The dispute is over interpretation.

• **The Big Questions**—Three phases mark that dispute:

(1) Is California entitled to share equally with Arizona in the 1-million acre-ft. of lower basin water specified in Article III (b) of the compact?

(2) Is a state entitled to salvage water (which nature formerly wasted in a desert channel) and not to be charged under the compact for such water? Arizona is thus salvaging 1.1-million acre-ft. from the Gila, a tributary of the Colorado. If this water were charged against Arizona's allotment, there would be more for California. California says the Gila project comes under



Behold the grandmother of a gallon of gasoline!

Our nation's coal supply may last only another 3,000 years!

Our nation's oil supply may last only—ah! There's the debate. Some say 30 years. Some 50.

Whatever is being done to beget oil from coal contributes to the long life of the oil industry.

Dresser Industries is constantly designing new equipment for producing oil more efficiently and draining wells more thoroughly. However, Dresser also was one of the original sponsors of research in this country for gasification of coal. This is the process of turning coal into synthetic petroleum products.

It is one thing to sell the latest operating equipment to an industry. It is something else to engineer ahead of the trend in order to protect that industry's source of supply. Dresser does both for Oil.

BOVAIRD & SEYFANG Mfg. Co.
Bradford, Pa.

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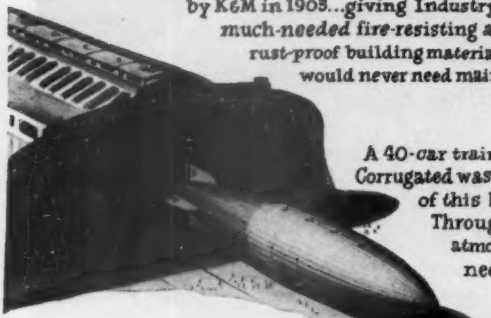
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TERMINAL TOWER • CLEVELAND 13, OHIO

How much do you know about *Asbestos*?

The first corrugated sheathing made of *Asbestos-Cement* was produced by K&M in 1903...giving Industry a much-needed fire-resisting and rust-proof building material that would never need maintenance.



A 40-car trainload of K&M *Asbestos* Corrugated was needed to sheathe the sidewalls of this huge hangar at Lakehurst, N.J. Through 28 years of corrosive seacoast atmosphere the siding has never needed maintenance, or repair.

Originally designed for soot-and-grime industrial service, K&M *Asbestos* Corrugated is now being specified for interior decorating...in theatres, restaurants, stores, even homes!



It isn't too surprising... this strange "double life" being led by "Century" *Asbestos* Corrugated. Not when you realize that its rugged simplicity and neutral gray color give it an attractive appearance that blends with almost any decorative scheme. Plus the fact that it *can't* burn, *can't* rust, *can't* rot... and *never* needs to be painted for protective reasons.

Economical to install, too... especially on roofing jobs over steel purlin construction, thanks to the new "TOP-SIDE" fasteners exclusive with "Century" *Asbestos* Corrugated. The drawing above shows how the fastener is inserted through a drilled hole in the sheet, then hooked to the purlin—the whole job being done from the roof surface. No expensive scaffolding needed! Write us for full facts.

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mankind since 1873



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the term "beneficial consumptive use."

(3) Are evaporation losses at such reservoirs as Lake Mead to be borne by California and Arizona in proportion to the waters stored there for each of them? California claims that its guaranteed allotment (4.4-million acre-ft.) is a net figure, not subject to reduction for losses at reservoirs outside the state's borders. Such loss could come to 500,000 acre-ft. or more.

• **Boulder Canyon**—The Boulder Canyon Project Act, passed by Congress in 1928, has raised some more ticklish points. The act authorized construction of the Hoover Dam, provided that either (1) all seven basin states ratified the Colorado River compact, or (2) that six states, including California, ratified it and California enacted a limitation law. Arizona balked at the time, so California passed the required law. This limits California's annual use of Colorado River water to 4.4-million under III (a) of the compact, plus not more than half of any excess water unapportioned by the compact.

The questions here are: Is the extra 1-million acre-ft. of water allotted in III (b) of the compact apportioned or unapportioned? And is California's limitation a net limitation, or should reservoir evaporation losses be deducted.

• **Bridge Canyon**—Another bone of contention: Last year Arizona brought in to Congress a bill to authorize the Bridge Canyon project. This bill ties into one package a high dam and power plant at Bridge Canyon, above Lake Mead, and diversion works several hundred miles downstream. The works would deliver 1.2-million acre-ft. a year for irrigation in thirsty central Arizona.

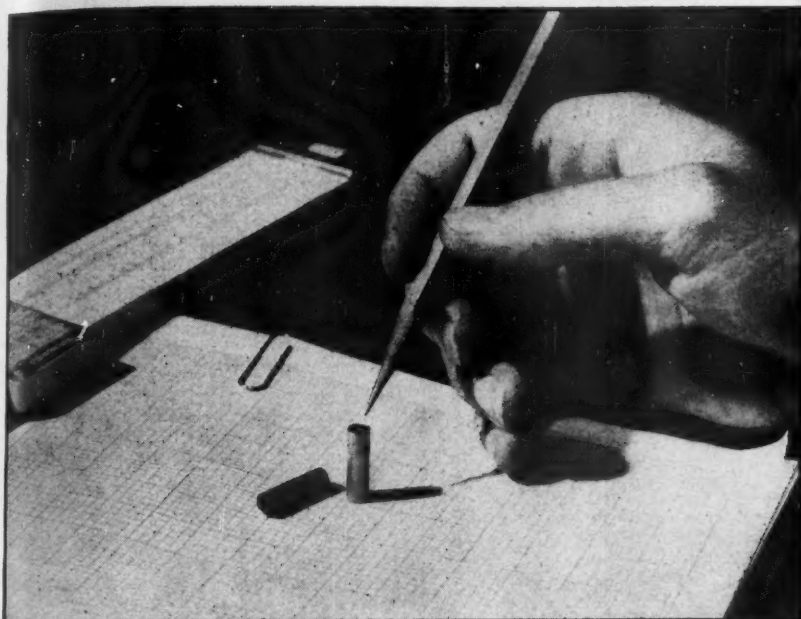
California maintains that Arizona has no right to the water this bill calls for. If the bill authorized Bridge Canyon dam and power plant alone, California would support it. California needs the power.

• **Critical Question**—The business development of the states is closely tied up to the solution of the river problem. Central Arizona is already feeling the water pinch. Unless water is brought in, irrigation will lag—with severe repercussions to business in the state.

Power is California's main trouble—but Los Angeles and San Diego plants even now are asking: "Can we be sure of our water supply 25 years from now?"

• **No Answer**—Since California's bills for a Supreme Court ruling were still in subcommittee when Congress closed, the issue remains at deadlock. Until the states come to some agreement, their battle blocks any start by the federal government on further large-scale development of Colorado River resources, particularly in the lower basin.

PRODUCTION



TINY METAL CYLINDER holds a bit of germanium, amplifies power 100 times to . . .

Substitute for Vacuum Tube

Bell Laboratories scientists develop a small, revolutionary amplifying unit. It eliminates conventional anode, cathode, grid, glass bulb, and vacuum. Wide use in electronic devices possible.

The vacuum tube has a new competitor. It's a tiny metallic unit, not much larger than the tip of a shoelace. Yet it does most of the work of the conventional vacuum tube, and has none of its complexity.

• **Powerful But Simple**—Bell Telephone Laboratories showed the device last week. Called a Transistor, it's nothing more than a tiny metal cylinder housing a small slab of germanium (a cousin of zinc). On this rest two fine tungsten wires like the "cat's whiskers" of crystal-radio. These hair-thin wires are within 0.002 in. of each other; through their interaction power inputs are amplified up to 100 times.

Small variations in input voltage cause large variations in output when the device is used in an electronic circuit. The conventional vacuum tube gets the same result. But the Bell Laboratories' device is much simpler: It requires no anode, no cathode, no grid, no glass bulb, no vacuum. And, furthermore, it doesn't need time to "warm up" before it's ready for use.

• **What It Does**—In demonstrating the potentials of the Transistor, Bell scientists showed its use for: (1) amplifying telephone conversations; (2) radio re-

ception; (3) oscillation; and (4) television.

• **Future**—The industrial future of the Transistor looks bright. Makers of hearing aids, broadcasting equipment, electronic computers, and a host of other electrical goods will eye the new device for its:

- Small size.
- Performance (quick starting and coolness are important here).
- Long life.
- Other savings (in a television set, for example, the Transistor would require fewer connections than conventional tubes, thus save an estimated \$50 here alone).

Another angle: Making Transistors isn't much different from making crystal detectors. So manufacturers could swing over to the new device without too much trouble.

• **Principles**—The Transistor works on electro physical principles discovered by Bell Laboratories scientists during their work with semiconductors. (Semiconductors are materials having electrical properties lying between those of metals and insulators.) Typical semiconductors are germanium, silicon, certain metallic oxides. They have been

**"When power fails
our ONAN
ELECTRIC PLANT
keeps us going"**



Power interruptions, due to floods, storms, mechanical breakdowns or strikes can cause serious loss to business and industry. Materials in process may be wasted, men and machines stand idle, lives may be endangered.

You can avoid loss and insure the safety of employees and public by installing an Onan Standby Electric System. The generating plant starts automatically when commercial power is interrupted, takes over the power load, runs until power is restored, then stops automatically. Standby plants to 35,000 watts, A.C. Write for folder.



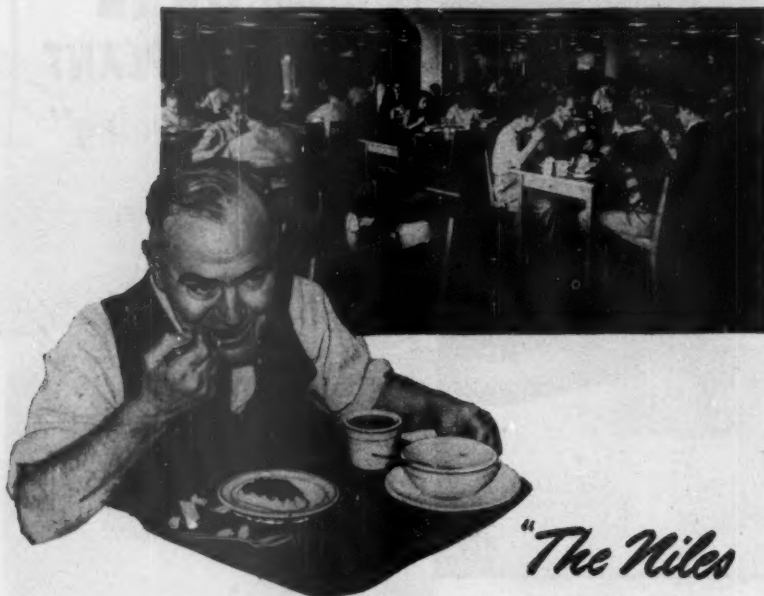
**Plug-in electric power anywhere with
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Speed work, cut costs by using electricity on every job. Onan Portable Electric Plants are easily wheeled, carried or trucked to any spot, supply A.C. or D.C. power for lights and any motor-driven equipment. Ask for our portable plant folder.



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"The Niles Cafeteria Does a Job for Us"

"I keep going to the Niles cafeteria," says William P. Fay, "because I get along better at my work with good hot food." For eight years a valued Niles employee, Mr. Fay's work is grinding and lapping precision gages. He speaks for his 3,000 fellow workers who depend for good health upon a regular, nutritious diet to give them the steady hands needed to uphold the Niles-Bement-Pond reputation as leaders in the manufacture of precision tools.

President F. U. Conard has said that "Niles-Bement-Pond must maintain high quality not only in our products but in our buildings, our equipment and our people." And in keeping with this policy of valuing good workmanship equally with good equipment, the Niles management helps to keep their workers happy by using experienced Crotty Brothers' restaurant service to furnish good, appetizing hot meals at the plant.

Niles officials have found, as a constructive labor relations policy, that it pays in production efficiency to attract and keep their better type employees. And as evidence that Crotty Brothers' service ably assists in such a program, their cafeteria has been Crotty-operated since 1942.

★ From a series of case studies of in-plant feeding made by Richardson Wood, Industrial Analyst. A copy of his report on management's postwar opinions about employee feeding will be sent free on request.

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used for some time in rectifiers, which convert A.C. to D.C.

Materials become conductors because there are current-carrying electrons present. The ratio of current-carrying electrons to non-working electrons determines the degree of conductivity. In metals, there's one current-carrying electron to every atom; insulators have none. Semiconductors can have as little as one current-carrying electron to every million atoms. It's hard to change the number of current-carrying electrons in a conductor, easy to change the number in a semiconductor. Thus, the conductivity of a semiconductor can be stepped up a thousandfold by changing the electronic structure of the material.

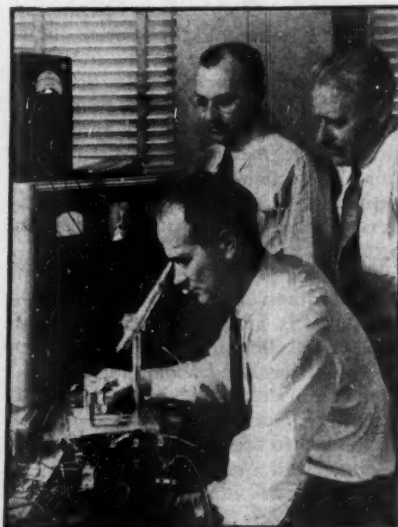
Because they can do this, Bell technicians have for years been using semiconductors for rectifiers and detectors. And out of that experience came the Transistor, or "pinpoint tube."

• **Secret**—Dr. John Bardeen, Dr. Walter H. Brattain, and Dr. William Shockley (picture, below) get the credit for the actual development. Here's how they did it: They reasoned that a semiconductor carries current in two ways:

(1) Most of the electrons act mainly as a "cement" to bind the atoms into a solid, and are held in fixed position. But if one of these gets out of place, or if another electron is introduced, current can flow.

(2) When one of the "cement" electrons is removed, the "hole" that's left behind can carry current. What's more, that "hole" can travel through the semiconductor the way a bubble travels through liquid.

In the Transistor, one "cat's whisker" (the positive terminal) creates what the scientists call an "area of interaction"—it disturbs the electronic structure. Not



DEVELOPERS of the Transistor: Doctors William Shockley (seated), John Bardeen (middle), and Walter Brattain



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... for sailing that's all pleasure ... no scraping or caulking!

For the skipper who prefers sailing to getting his boat ready to sail—here's a lightweight, shock-resisting, seamless, all-plastics hull that can be left in or out of the water—always ready to go—all year 'round.

The "BB" hull, mast socket and centerboard trunk are made of a thermosetting resin reinforced with Fiberglas Mat—all formed in one operation, at low pressure, in a single giant-size mold.

Fiberglas Mat—one of several forms in which these fibers of glass are used for plastics reinforcement—is low in cost and can be used with either

high or low-pressure laminating equipment. If you are designing, manufacturing or using products that require high impact strength, low moisture absorption, dimensional stability, high-temperature resistance, good electrical qualities—get complete information on the properties, applications, economics and typical methods of fabricating products of plastics reinforced with Fiberglas Mats, Cloths and Fibers... Owens-Corning Fiberglas Corporation, Dept. 803, Toledo 1, Ohio. Branches in principal cities.

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The new "BB" engineered and molded by the General Electric Company, Pittsfield, Massachusetts, for the Beetle Boat Company, Inc., New Bedford, Mass.

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**Fireside -
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each fares better with
TRANE
**heating and
air conditioning**

domestic



The builders of these beautiful apartment buildings wanted to give tenants the best possible heating, yet costs had to be held down. Trane Convactor-radiators were selected for their economy, ideal heating, and individual fingertip control.

commercial



The operators of this large and famous fur store wanted air conditioning for their five-story building, and cooling for their fur storage vaults. They found that a Trane system could be fitted into the building to give them exactly the right conditions.

industrial



When this new plant for producing "juke boxes" was built, large glass areas were installed to provide plenty of light. The huge windows and the skylighted saw-tooth roof presented a heating problem, but a Trane system cut drafts, reduced wasted heat, and gave workers comfort.

There is a Trane System to solve every kind of heating and air conditioning problem efficiently, whether it be comfort or process—domestic, commercial, or industrial. Trane Systems are designed to fit your application by architect, engineer, or contractor. 200 Trane Sales Engineers offer their counsel. *Users' names on request.*

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systems

only are electrons added, but "holes" are created. The other "cat's whisker" (the negative terminal) picks up electrons that bubble to the surface, and an amplified current flows instantaneously. The amount of output is governed by input (or signal) current; amplification up to 100 times is possible. In short, the device acts like a pump that puts more oomph on the electric signal.

• **Power Consumption**—All this takes very low power consumption: less than a tenth of that consumed by an ordinary flashlight bulb. That's another plus factor for the device.

Bell technicians are shy about production possibilities. They say that the device is still in pilot production; large-scale manufacturing problems are still to be solved. But they believe that because of the device's simplicity, costs won't be high. Another plus factor: The life of the amplifier is expected to be long.

• **Limitations**—Dr. Ralph Bown, director of Bell research, added a note of caution. The Transistor is not going to obsolete all vacuum tubes overnight: It has certain electronic limitations. It will do most of the jobs of the conventional tube, but it must be designed into the circuit. On the other hand, once electronics engineers get acquainted with it, many new applications for which vacuum tubes are not suitable may be opened up.

Bown says that Bell Telephone's interest is mainly in the communications field. But other industries will get a chance to work with Transistors just as other Bell patents are licensed for general manufacture.

Piling up Atomic Energy For Peacetime Britain

LONDON—Britain's second atomic energy pile will go into operation this summer. Set up at the Atomic Energy Establishment at Harwell, Berkshire, the pile will be a big brother to the GLEEP (Graphite Low Energy Experimental Pile) which went to work last year.

The new pile will make enough radioactive isotopes for all of Britain's research on peacetime uses of atomic energy. The pile will do double duty: It will be harnessed to heat the buildings at the station in one of the first domestic applications of atomic energy.

Isotopes from both Harwell piles will be packaged and distributed by the government-controlled Radiochemical Center. In March of this year the GLEEP alone produced a record of 120 chemical samples transformed into radioactive forms. About a third of these were used at Harwell; the rest went to hospitals and research laboratories all over the country.



They're *all* Freedom Trains

ONLY one train carries such precious cargo as the Constitution and the Bill of Rights. But in a very real sense, *every* train is a freedom train . . . each, as it moves dependably over the rails, binds closer the economic might guarding American liberty in a troubled world.

That is the supreme importance of the NEW in New York Central. This \$290,000,000 program of progress is reinforcing one of America's most vital rail fleets . . . the Great Steel Fleet that links East and West along the *Water Level Route*.

Three miles of new streamlined coaches, dining and club cars are here . . . and more miles of new all-room sleeping cars are on the way. Over 23,000 new freight cars are rolling . . . with thousands more to come. And there'll be the world's largest force of new Diesel locomotives to pull them.

Today, along 11,000 miles of steel arteries, the NEW in New York Central is quickening the pulse of the nation's industrial heart. New trains . . . efficient trains . . . *freedom trains*, strengthening all America to protect peace and liberty in the years ahead.

NEW **NEW YORK CENTRAL**
The Water Level Route

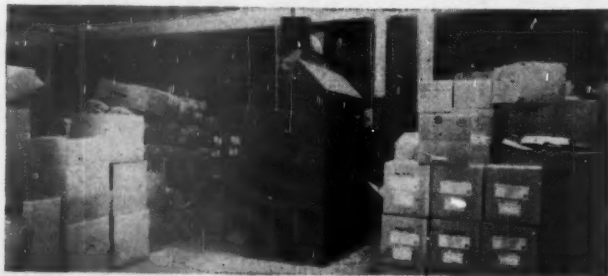




It's an *automatic* fireman who goes on the job at the flip of a switch for the Sanatex Company of Chicago. It cuts operational and maintenance expense to the bone and solves what had appeared to be an expensive heating problem for this processor of wiping cloths.

Not only is an attendant unnecessary—boiler-room and ductwork expense was eliminated, too, by installation of a Dravo *Counterflo* Heater. Centered along the east wall, the Dravo *Counterflo* Heater is entirely self-contained—requiring only power and fuel lines and a small vent stack. Its 1,000,000 BTU output is directed slightly over the heads of the workers to blanket 10,000 square feet of unbroken plant area with draft-free warm air. Cold corners and excessive roof heat loss are eliminated. During summer months, a touch of the selector switch converts the Dravo *Counterflo* Heater immediately into a powerful air-circulating unit.

Dravo *Counterflo* Heaters are available in sizes ranging from 400,000 to 2,000,000 BTU output. Equally efficient with oil or gas and with or without ductwork, they can be floor-installed, wall-hung or roof-hung. Write for Bulletin HS-516. Heating Section, Dravo Corporation, Dravo Building, Pittsburgh 22, Pennsylvania.



According to Mr. Schulman, President of Sanatex Company, the Dravo *Counterflo* Heater "is the best equipment we ever had. Delivery of heat is virtually instantaneous when the unit goes into action—an important fuel-saving feature which eliminates the need for anticipating cold spells or keeping the heater in operation when the plant is closed."

Dravo also manufactures the DRAVO CRANE CAB COOLER for air conditioning hot-metal crane cabs

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ATLANTA • BOSTON • Sales Representatives in Principal Cities

New Standards

American Society for Testing Materials adds 52 more criteria to its prior list of 1,400. Many technicians assist.

How does one material or product stack up against another? To answer that question, the American Society for Testing Materials over the years has worked up 1,400 standards.

• **New Standards**—Last week, engineers in a wide range of industries were getting copies of 52 new (or revised) testing standards to add to the ones they're already using. The subjects covered range from boiler corrosion factors to the setting time of cement.

A.S.T.M. has 6,300 members. In its ranks are makers of materials, users, and middle-grounders—consulting engineers, scientists, test-lab technicians, educators. From these groups are drawn the 700 committees that meet regularly to thresh out new standards of testing.

• **Long a-Borning**—Getting a new standard born—or an old one made over—is a long, hard business. It starts in whatever committee has charge of that particular field. The committee does the spadework—the detailed study, the work recommendations. This goes to a meeting of representatives from the producer, consumer, and general-interest groups. They hash over the proposals. When the results are O.K.'d by two-thirds of the group, they go back to the committee again. If the committee approves, the fledgling standard goes up for its "finals"—approval at the annual meeting of the society.

But even the finals aren't really final. The specification or test method is published as tentative for a year or more. In that time it goes through a trial run. The committee weighs the resulting criticism and comment before it puts up the standard for a last vote. The final step: The entire society's membership must once more approve the standard. From then on, it's in.

• **Wide Interest**—A good gage of industry interest in A.S.T.M.'s work is the number of exhibits at the recent annual meeting in Detroit. There 44 companies showed their wares. Some of them were big names—Baldwin Locomotive, Eastman, General Electric. But most of them were names known only in the trade—manufacturers of devices to vibrate chemical flasks, or to measure the impact resistance of fiberboard boxes.

New president of the A.S.T.M. for 1948-1949 will be Richard L. Templin, assistant director of research, chief engineer of tests, Aluminum Co. of America.



*This will last all of a
minute and a half, won't it Judson?*



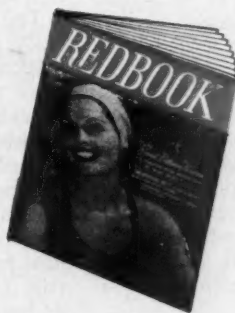
Judson: Yes sir, and it was quite a trick to make it as spectacular as it is!

Chairman: But it won't be anything but a lot of burnt sticks in the morning—and burnt sticks won't build up a steady demand for our dealers.



What we want is consistent advertising, month-in and month-out, and don't tell me we can't afford it. If you've ever taken a look at a magazine like REDBOOK, you know how economically we can tell our story to 1,800,000 young families.

REDBOOK families



have a record of purchasing that would give any business a real boost. They buy nearly 90,000,000 cans of coffee a year . . . over 250,000,000 packages of gelatin desserts, just to mention a couple of products.

And if you're worried about our budget, you need only \$36,000 to tell our story to 1,800,000 REDBOOK families in 2/3 pages every month in the year. That's real advertising to *our* dealers!

Don't forget REDBOOK families are *regular* buyers! Let's tell 'em regularly!

REDBOOK

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GOODRICH'S NEW \$5-MILLION LABORATORY, far from noise, dust, and vibrations, offers researchers the facilities of a . . .



TECHNICAL LIBRARY of 10,000 volumes (some date from 1780). Scientists can "backtrack" data, apply results in . . .



INDIVIDUAL LABORATORIES of "modular size." These can be converted into units where products and processes get . . .



ULTRAMODERN TESTING. Example: A technician uses isotopes to study the behavior of materials in processing as . . .

Research Center Seeks New Uses for Rubber

The research-conscious rubber industry lays out plenty of cash to find better ways to make its products and to develop new uses for them. The latest addition to the industry's "brain-plants" is that of B. F. Goodrich. This lonely research center, is located midway between Akron and Cleveland. Construction of the plant cost well over \$5-million, uses the most precise and delicate instruments, in both fundamental and applied research.

The Goodrich setup didn't sprout overnight. A six-year study of research's housing problem went into its making. The rubber scientists knew about what they wanted: (1) to centralize their work—formerly scattered in five buildings in various parts of Akron; (2) to get away from dirt and noise; (3) to isolate their delicate machines from plant and railroad vibrations; (4) to have room to spare for still further expansion.

Research heads visited 26 typical labs

throughout the country, talked with dozens of industrial research directors, studied 90 possible sites. After gathering all these data, they then set their own lab specifications.

• **Result**—Here's what they finally got:

A main research building has 112 separate rooms, each 10 ft. by 26 ft. Partitions are easily removable so that two or more units can be made into a single room. Walls are windowless; rooms are lighted by fluorescent lamps. Floors are rubber-tiled; desks are rubber-topped. Also included: a 10,000-volume technical library; a 200-seat auditorium; a cafeteria to handle 125 people; a huge steel vault to store top-secret papers and rubber compositions. Window elimination, says Goodrich, saved 500,000 cu. ft. of space and made construction considerably cheaper.

An emergency lighting system, battery-operated, will supply illumination if power fails. The air can be conditioned

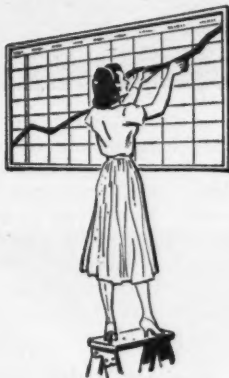
to any degree of temperature and humidity, is filtered by Precipitron—an electronic dust-remover.

• **Other Building**—One of the smaller buildings is for high-pressure research. This building has reinforced concrete barricades with walls a foot thick to protect workers.

The second isolated building will house gas experiments. Thorough ventilation is, therefore, one of its big features. A third building will store volatile solvents. A fourth is used for cooling the water needed for air conditioning.

• **Big Plans—No Strings**—Goodrich has ambitious plans for its scientists, but will put no strings on their methods. The company hopes to: (1) pioneer into new fields; (2) improve present materials; (3) study the use of atomics and its byproducts in rubber processing; (4) go further into the agricultural chemical field, and most of all, (5) speed up the rate of scientific progress.

She's Raising Office Costs With Her Bare Hands



Bare hands? Yes . . . hands that lack the proper equipment, the right tools, to get work done efficiently. It's a situation that would not be tolerated for a minute in the factory, yet is all too familiar in the office. Result: steadily mounting costs, excessive overtime, the hiring of temporary help.

Any business can meet this problem by providing office workers with the right machines for their jobs. At one desk, a simple adding machine may be required; at another, a

calculator; at still another, a bookkeeping or billing machine. *Whatever the need*, it must be met for office efficiency—just as surely as factory workers must be supplied with the right power tools and machines for production efficiency.

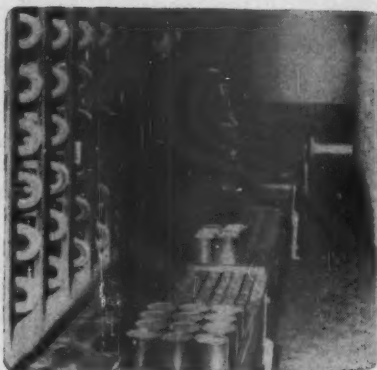
A desk analysis by your trained Burroughs representative is the first step toward reducing costs in your office. Burroughs Adding Machine Company, Detroit 32, Michigan.

WHEREVER THERE'S BUSINESS THERE'S

Burroughs

THE MARK OF SUPERIORITY
IN MODERN BUSINESS MACHINES





New Process Uses

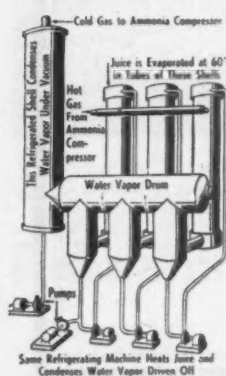


Refrigeration

for both Boiling and Freezing Orange Juice!

The plant of the Florida Citrus Cannery Co-operative, started in February at Lake Wales, is remarkable because it uses refrigeration instead of steam for concentrating fruit juices.

The cycle shown, on which Mojonner Bros. Co. of Chicago have patent applications,



utilizes both the heat and the cold supplied by a refrigerating machine—and with excellent economy.

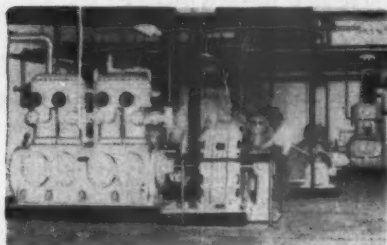
A separate Frick refrigerating system quick-freezes and stores the vacuum-packed juices at ten below zero. Food value and fresh flavor

are both retained. Additional Frick machinery to enlarge the plant has recently been purchased.

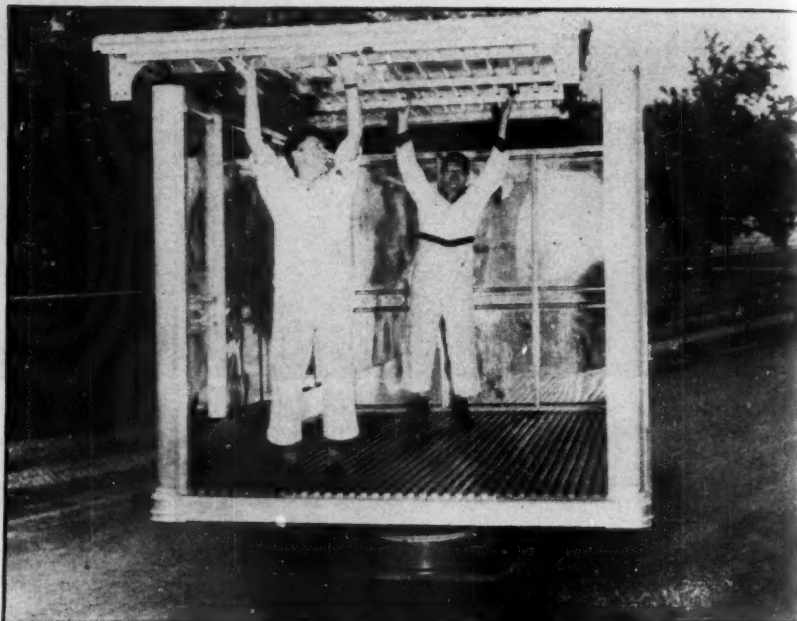
Let us cooperate in solving your particular refrigerating problems.



4 of 5 Frick Ammonia Compressors, Lake Wales



NEW PRODUCTS



Put-Up Truck Body

Truck bodies and trailers made of lightweight metals have already blossomed out on manufacturer's assembly lines (BW-May 1 '48, p63). Now Brown Industries, Spokane, Wash., has come up with a "packaged" aluminum body. Two men can put the body together on the chassis of any standard truck—from one to three tons—in about two hours.

Panels come bolted together; there's no welding—or riveting to do. Interlocking, heat-treated extrusions joining the panels make the assembly moisture-proof, Brown says.

An added feature is the corrugated flooring made of an aluminum alloy, Coralite. The corrugated sheet is said to have the rigidity of $\frac{1}{2}$ -in. aluminum plate. It can be cleaned and sterilized for perishable cargo without picking up the extra deadweight that collects on wooden floors from frequent steam cleanings.

• Availability: August.

Primeless Wall Coating

A wall coating that will stick to polished surfaces and porous materials without a prime coat has been developed by Alton Laboratories, Chicago. The plaster-paint mixture is a compound of processed soybean oil and styrene with silica sand and pigment. Sandy in texture, San-Finish will go on with an ordinary paint brush or with a special spray gun.

According to Alton, one heavy coat of the finish can be used in place of

layers of plaster, prime coat, and finish paints. It will work on concrete block and insulation board, as well as on glass and aluminum. The finish is said to be resistant to moisture and easily washable. It comes in 7 pastel colors; a gallon covers about 125 sq. ft. Nall Corp., St. Charles, Ill., is the distributor.

• Availability: immediate.

Two-Fuel Boiler

A double-duty boiler that can be switched from oil to coal is manufactured by Diesel Oil Burner Corp., 105-20 New York Blvd., Jamaica, N. Y. This 2-in-1 heating system has two separate combustion chambers inclosed in a compact jacket. An electric control damper automatically shuts off one unit when converting to the other fuel.

The boiler is built of $\frac{1}{4}$ -in. plate steel, has a 10-in. steam chamber. The coal burner has a full-size fire box, holds enough coal for 8-hrs. to 10-hrs. burning. To get hot water, you don't have to use the complete heating system.

The boilers will be made with heating surfaces from 29.6 sq. ft. to 98 sq. ft. for homes, institutions, and medium-sized industrial plants.

• Availability: immediate.

Non-Welding Contact Metal

On industrial switchgear, silver contacts often weld or stick when high currents flow. Fansteel Metallurgical Corp., North Chicago, Ill., thinks it has licked the problem with a new electrical contact metal, Fasaloy 99.

The metal has the high conductivity

Why men who go Pullman go far...



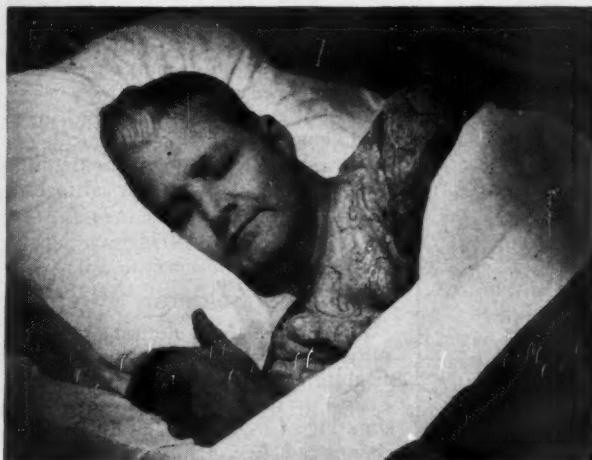
1. They make every minute count.

No trick to this when you go Pullman. To turn travel time into productive time, simply ask the attentive Pullman porter to set up a private table. (It's always available regardless of your accommodations.) You can work on the way, in air-conditioned comfort.



2. They know how to relax.

And you'll find relaxing comes naturally when you go Pullman. Get up, stretch your legs and walk back to the luxurious lounge car reserved for you and other Pullman passengers. Enjoy a refreshing drink—the conversation and companionship of important people.



3. They keep fit as a fiddle.

Plenty of sleep is one of the secrets. And how you sleep on a Pullman bed! It's big, soft, made fresh each day with crisp, clean sheets. You don't count sheep—just your blessings as you sleep like a baby while the train gets you where you're going *safely*.



4. They arrive refreshed, relaxed—on time!

Promptness is a habit when you go Pullman. Because you travel on dependable railroad schedules, arrive right in the heart of town, convenient to everything. You're mentally alert and full of fight. You feel and look like a million. You know why the men who go Pullman go far!

IT'S GOOD BUSINESS TO

Go Pullman

THE SAFEST, MOST COMFORTABLE WAY TO GET THERE!

See the Pullman Exhibit of New Accommodations at the Chicago Railroad Fair, depicting 100 Years of Railroad—July 20 to Sept. 6.

Remember...

**our P.P.F. is right with you
wherever you go!**



NO MATTER WHERE YOU GO, how long you stay, how often you move along, or how much you take with you, our Personal Property Floater is right with you! Here is protection that brings peace of mind on vacation or other trips. And yet this vacation protection really costs you nothing additional when you figure that our P.P.F. safeguards you and your family, together or separately, from loss the whole year 'round; and *at any place!*

Besides, P.P.F. gives even more protection than the types of policies usually carried, such as fire, windstorm, explosion, burglary, robbery insurance, etc. Any combination of these may be costing you more than a P.P.F. right now!

Do as thousands of others do—get our P.P.F. and avoid having your vacation spoiled by the loss or damage of some prized vacation equipment or personal effects.

Phone or see our nearest agent before you leave on vacation, or write to our Agency and Production Department.



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of silver plus a substantially higher "no-weld" current value, the company says. In tests, the contacts are reported to have successfully made and broken circuits carrying 25% more current than those handled by silver contacts. Surface resistance to the current was no higher than that of silver contacts—even where the new metal was subjected to high temperatures.

• **Availability:** small quantities, immediately; large lots, three to four weeks.



More Jobs For Drills

Electric or air hand drills can be used for sawing, filing, or polishing. You just add an attachment developed by V-W Specialists, 35 S. 69th St., Upper Darby, Pa. The device, called the Clever Saw, converts the standard rotary motion of the drill into a backward and forward action to work the saw.

Moving parts of the attachment are inclosed in an oil chamber; constant lubrication keeps friction to a minimum. All kinds of saw blades (3 in. to 4 in. long) can be used. The device has a 3-in. stroke; it works with drills and flexible shafts turning at speeds up to 1,700 rpm.

• **Availability:** 30 to 60 days.

Quick-Heat Solderer

LONDON—An electric soldering gun that builds up to a working temperature almost immediately (within 7 sec.) is marketed by Burgoyne Engineering Co., Ltd., 1 Robert St., Hampstead Rd., London, N.W. 1.

The secret of the gun's fast heating is a specially designed transformer developed by the company. With this transformer, the voltage is cut to a potential of only 1/2 v., and the rate of flow of current from the transformer is stepped up. The secondary winding of the transformer leads out through the Bakelite housing of the gun to form a holder for the soldering tip. This tip is heated by induction; made of copper, it is shaped for mechanical rigidity, can be replaced quickly by loosening two screws.

Since there is no current passing through the tip, the gun can be used safely inside a.c. radio sets. The gun

is shaped so that it can be laid on its side without any chance of the tip burning tables or floors.

The gun works on a.c., 50 to 100 cycles. There are two models, one for 200/250 v. and one for 100/130 v. Weight is 1 lb., 10 oz.



Thickness Measurer

An ultrasonic device that automatically measures the wall thickness of metal, plastic, and glass parts, and checks for flaws in the material, is in production at Photocon Research Products.

The Metroscope can operate even if only one surface is accessible. For example, the wall thickness of a long tube can be measured with less than 2% error, the company says. In testing for flaws, the device will pick up thin voids and cracks that will not show in an X-ray.

An electronic oscillator generates electrical voltage for the meter. The frequency of this voltage is varied throughout the tuning range of the oscillator. The meter shows the point or points in the tuning range at which the part being measured vibrates under the electrical current. Since for any given material these points of vibration or resonance are related to the thickness of the part, the Metroscope can be calibrated to read thickness directly. The resonance indications will also show flaws in solid parts.

Photocon is at 1062 N. Allen Ave., Pasadena 7, Calif.

• Availability: immediate.

Black Steel

Aluminized steel with a surface that has 85% of the heat-radiating properties of a perfect black body has been

developed by Sylvania Electric Products, Inc., 500 Fifth Ave., New York 18. The steel comes in 0.005-in. strips in varying widths, or as anodes and other fabricated parts for vacuum tubes.

Sylvania says the new material does away with the need for carbonizing nickel-plated steel parts. It has good welding properties and gives off a uniform degree of radiation.

The material starts as low carbon rimming-grade steel. This is hot-rolled to 0.080 in. thickness and then cold-reduced to 0.040 in. The strip is coated with an alloy of aluminum and silicon. It is then rolled to 0.005-in. thickness and annealed in hydrogen. Finished strip is ductile and has a black finish. In the research on the product, Armco Steel Corp. worked along with Sylvania.

• Availability: immediate.

Plastic Rack Coat

To protect dipping racks used in acid and chromium plating solutions, Enthone, Inc., has developed a new liquid plastic coating. Enthone 101 won't chip or crack; its tough coat is said to withstand strong alkali cleaners and chromic acid.

The material comes as a viscous liquid; it is applied to the racks by dipping, to make coatings varying in thickness from $\frac{1}{8}$ in. to $\frac{1}{4}$ in. It goes on over a primer coat and is baked. There are no solvents to evaporate; all drippings can be reclaimed and used again, the company says. The coating is also recommended for tanks, work holders, and acid dipping baskets. The manufacturer's address: 442 Elm St., New Haven, Conn.

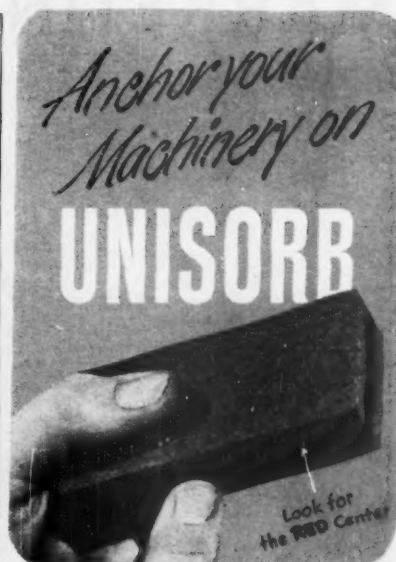
• Availability: immediate

P. S.

A collapsible golf bag carrier can be towed around the course with one or two bags. The gadget is made of aluminum and stainless steel, weighs about 8 lb. Wheels have roller bearings, 2-in. rubber tires. Broken down, the King Caddy is small enough to fit in a locker. The maker: Ercona Mfg. Co., 130 W. 102nd St., New York 25.

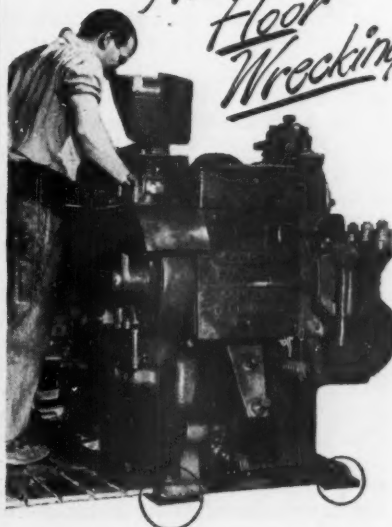
Spindle holes in phonograph records often are enlarged by the action of automatic record changers. You can make a new, perfect hole with a kit manufactured by Fern Mfg. Co., 3915 Pleasant Ave. South, Minneapolis. The Nu-Hole kit includes: a tool to cut around the old holes and prepare the record; a centering base, the Nu-Holes (washer-like rings); record labels.

Combination crib and play pen, when closed, looks like and carries like a piece of luggage. Weight is 37 lb.; closed measurements: 29 x 20 x 9 in. Brecher Bros., 708 Broadway, New York, calls it the Travel Crib.



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The penalties of obsoleted anchoring methods are gone...for good...when you mount machinery the modern UNISORB way.

A special cement binds the UNISORB pads to the machine feet and the floor with a minimum holding strength of 1500 lbs. per square foot. Permanent set absolutely prevents any riding.

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MARKETING



MANY TYPES of goods travel by air today. Among them . . . PERISHABLE FOOD is getting to be important, as . . .

Airfreight Is Gaining As a Marketing Tool

Women's apparel, perishable foods, emergency loads of durable goods make up bulk of traffic. CAB puts floor under rates.

Air transport is putting wings on many a commodity that used to crawl on the ground. Before the war, property traffic through the air hovered just above zero (chart, page 57), almost all of it air express. Postwar, however, the volume of air shipments has climbed sharply; airfreight has accounted for most of the rise.

You can pretty much reduce the trend to a marketing formula: Airfreight is used most often (1) for goods of high value, where the greater cost of air shipment makes little difference, (2) for goods of high perishability, or (3) in other situations where speed of delivery is more important than cost.

• **Who Ships By Air**—A recent Civil Aeronautics Board survey shows pretty well who's among air shippers. For two weeks, CAB checked every shipment, to find out what was flying. Here's what it learned:

Women's apparel was accounting for 30.6% of the total. Principal reason for this No. 1 spot is that logistics (having the right style in the right place at the right time) is all-important in the fashion trade.

Fruits, vegetables, and flowers were second, with 13.5%. Perishability is the big factor here, of course.

Durable goods came next. Automobile parts and accessories made up 7.1% of total shipments; machinery and machine parts 5.3%; electrical appliances and parts 4.5%. It's likely that the need for speed accounted for a large portion of such shipments.

Also-rans in the CAB survey: printed

matter, 4.3%; medicines and drugs, 3%; aircraft parts, 2.4%.

• **Airline Interest**—The increase in airfreight volume is being matched by more attention to the freight business by the big airlines.

This week United Air Lines offered proof that the passenger lines are upgrading airfreight from its position as a byproduct of passenger transportation: The company put into operation a new payload-control system for freight shipments. It will eliminate one of the big headaches of the freight business—planes flying only half full.

• **Express Too Costly**—Air shipment has been available for years, in the form of air express. The rates, however, were too high to permit large-scale, regular shipments. It took airfreight, with rates that are comparable to those of rail express, to open the air frontier to most merchandisers.

The fashion business is the best example. Some stores now receive as much as 50% of their merchandise by air.

• **Example**—Saks Fifth Avenue, for instance, uses airfreight to fill depleted stocks in its Detroit, Chicago, and Beverly Hills stores. Overnight shipment avoids sales losses which might occur for lack of a popular style in stock. Late deliveries from manufacturers are another reason Saks ships by air; airfreight often enables the company to get dresses to a store in time for the opening of a season despite late deliveries.

Saks finds another advantage in air

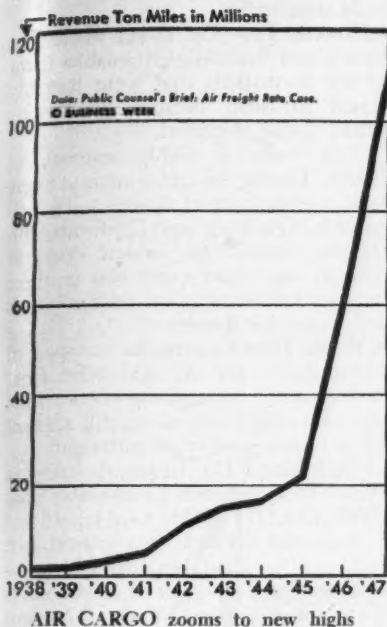
shipment—it helps balance inventories between stores. A number that is selling like hotcakes in Beverly Hills may be clogging the racks at Detroit; Detroit's slow-moving stock can be flown to Beverly Hills within 24 hours.

Saks uses airfreight for another purpose: "progressive clearance" sales. A clearance will be staged at Beverly Hills; three or four days later Chicago will start a clearance of its own merchandise—plus the Beverly Hills' leftovers which were shipped in by airfreight.

• **Mail Order**—Sears, Roebuck ships by air from New York and Chicago to branch stores in other cities to save time on seasonal merchandise. Montgomery Ward also uses air transport for shipping fashion merchandise to its stores. And on mail orders for fashion goods from the Southwest and Far West, Ward's ships by air to Fort Worth, Oakland, or Portland; reships from those points to the specific destinations by parcel post. The company uses this faster service as a big advertising and sales-promotion feature.

Ward's figures that it saves on inventory expense through air shipment—it enables stores to operate on smaller stocks. A store with an average daily sale of 100 units of a particular item has to keep about 800 units on hand if delivery time by surface transportation is eight days. With two-day airfreight delivery, the inventory can be cut to about 200 units.

Grayson Robinson Stores, Inc., a chain with retail stores all over the country, uses airfreight to speed up turnover, ships as much as 50% of its total volume by air during busy seasons. New merchandise coming into the store by air every day keeps the enthusiasm



of customers and salespeople at a high level.

• **Food by Air**—Food wholesalers—particularly of specialty foods—are using airfreight increasingly to avoid spoilage and shrinkage. But the volume is still small: In 1947 the equivalent of 18 railroad cars of produce reached New York City by air—out of a total volume of 190,912 carloads.

Produce wholesalers are also trying out airfreight as an aid in selecting markets. Their aim is to market an early crop in an area where it's still scarce or unobtainable, and where the prices, therefore, are still high. In many cases, too, air shipment eliminates the need for costly refrigeration. Such savings, however, have to be balanced against the higher price of air transportation.

• **Seafood**—Fulham Brothers, Inc., Boston, ships from 10 to 12 tons of fish a day to western and midwestern states. The chief advantage offered by airfreight is that fish can be shipped fresh; for rail express, the fish must be frozen. There's one drawback, however. Air shipments have to be "dry freight," because salt water leaking from a package would damage other freight by contact. The company is experimenting with new methods of packaging to eliminate the costs of special insulation.

Brooks-Sprague, in Lynn, Mass., also ships seafood by air. Its product is lobsters—they now make journeys in 14 hours that used to take five or six days. And the fact that the death rate of live lobsters is less in air shipment than by rail helps to compensate for the higher cost of air shipment.

Food Fair Stores, Philadelphia, makes occasional use of airfreight to bring in a planeload of some item such as strawberries. Food Fair gives them a big

How packaging time was cut 40%

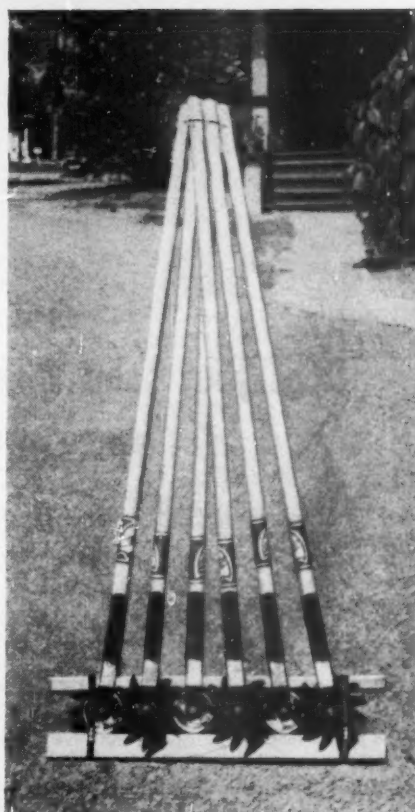
Read how Acme Steelstrap and Acme methods help tool manufacturer cut packaging material costs 88%

The Multi-Shear Lawn Edgers pictured here are made by Appliance Manufacturing Company, Santa Ana, California.

Old cost for packaging six units was 27¢, with 5 minutes' packing time.

Then an Acme Shipping Specialist suggested the method of packaging you see here—two wood strips "Bound to get there" with Acme Steelstrap. Cost, 3¼¢; time, three minutes. Saving, 88%.

Pennies saved per packaging unit mean dollars on your books at the end of the year. Acme Shipping Specialists are ready to help you get them. For more information—and detailed case studies of how we have helped other companies—just clip and mail the coupon for the free booklet, "SAVINGS IN SHIPPING."



MONEY SAVING AND PRACTICAL—just three minutes is all it takes to package six lawn edgers with Acme Steelstrap for a saving of 88% over previous package cost.

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Please send me a copy of your case history booklet, "SAVINGS IN SHIPPING."

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Company _____

Address _____

City _____ Zone _____ State _____

Acme Steelstrap

ACME STEEL CO.
CHICAGO

NEW YORK 17

ATLANTA

CHICAGO 8

LOS ANGELES 11



Does your sales trend have you "flying blind"?

If you take 3 to 6 months or more to make deliveries, this is a good time to be checking your course in sales trends *every day* instead of flying blind.

Your order analyses may tell you there isn't a mountain peak dead ahead.

But production schedules issued on the basis of these orders may become mountain peaks a few weeks or months hence unless you analyze your shipments and stock to know exactly where you are... and what the drift is... from day to day!

McBee helps ensure the continuity

of your business by putting on your desk just the "instruments" you need to avoid "flying blind."

Keysort cards and machines put at your fingertips daily *all the facts... fresh facts...* about your deliveries and your inventories, your orders and your production schedules.

By helping you detect sales trends *in time*, Keysort enables you to keep your business on the course and on an even keel.

You can stay on top of all the facts daily, and do it easily, economically, quickly. There's a McBee man near you. Ask him to drop in, or write us.



KEYSORT is easy to learn, easy to use, requires no specialized job training...increases individual work output without increase of individual effort.



THE MCBEE COMPANY

SOLE MANUFACTURERS OF KEYSORT — THE marginally-punched CARD
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play, counts on them to sell well—and build store traffic.

• **Flowers, Too**—The flower wholesalers have found that airfreight enables them to sell in markets that were formerly closed to them because the flowers wilted during shipment.

This traffic is highly seasonal, of course. During fall and winter, as many as four planeloads of flowers a day will arrive in New York from California; during the summer the volume drops to perhaps one plane every two or three days—and then only of relatively rare and expensive flowers.

• **When Time Counts**—Air transport of commodities got its real start from "emergency" shipments—where time was vital. Such shipments still account for a sizable part of all airfreight.

Ford Motor Co. frequently takes to the air to secure parts for assembly lines (BW—Oct. 11 '47, p42). Ford knows that a shutdown for lack of a critical part is far costlier than any airfreight rate.

A small percentage of airfreight moves for prestige reasons. These shipments include gifts for public figures, new products for fairs and exhibitions, and old products getting a promotional ride.

• **Cost**—During the comparatively short lifetime of the airfreight business, the cost of sending merchandise by air has varied all over the lot. At present, however, the rate structure has pretty well settled down, because CAB established minimum rates, effective last week. The basic charge is 16¢ a ton-mile for the first 1,000 ton-miles of any one shipment.

Airfreight is still much more costly than railroad freight, of course. But it's not much more expensive than rail express—and considerably cheaper than air express. For instance, 100 lb. of cotton textiles can be shipped by airfreight from New York to Los Angeles for \$19.61. By rail freight the shipment would cost only \$4.56; by rail express, \$15.51, including pickup and delivery; by air express, \$73.68 including pickup and delivery.

• **Competition**—The figure given for airfreight varies slightly between different airlines. This is partly the result of the fierce competition that exists between the certificated carriers (United, American, TWA, etc.) and the noncertificated carriers (Slick Airways, Flying Tigers, Willis Air Service, etc.).

Currently the industry is waiting for a CAB decision on applications by the noncertificated lines for regular routes. A special exemption permits the noncertificated lines to operate on regular routes pending the CAB decision.

A third group of airfreighters is known as the "contract carriers." They are not permitted to publish regular rate schedules, operate regular routes, but will generally carry anything anywhere on contract. Most certificated



For long life—low maintenance costs—more and more railroads are turning to the new, exclusive **SKF** Saddle-Type Journal Box.

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To the rugged qualities of the **SKF** bearing, proved throughout the twenty-seven years since **SKF** pioneered the use of roller bearings on railway rolling stock, the saddle construction adds greater efficiency, greater economy.

SKF Saddle-Type Journal Boxes are available for both narrow and wide pedestal openings.

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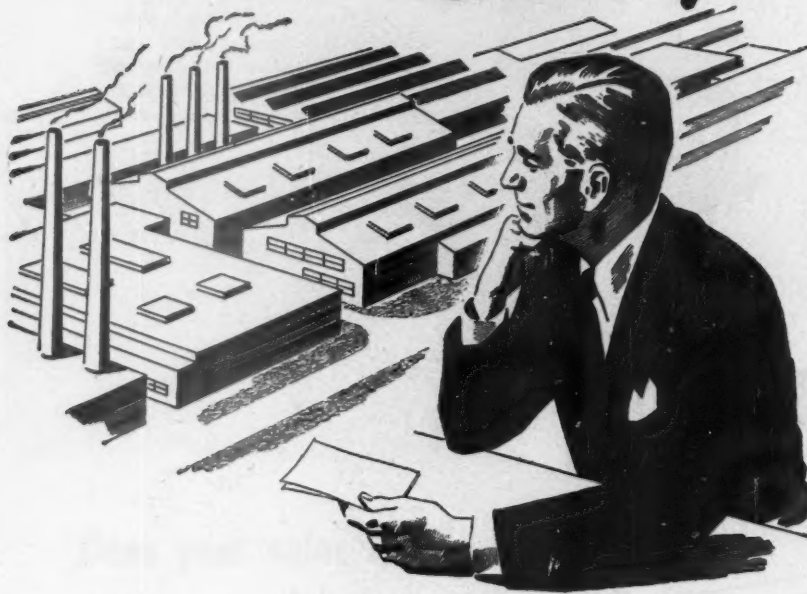
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BALL AND ROLLER BEARINGS

The right bearing in the right place

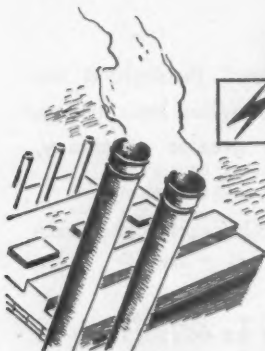
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KOPPERS-ELEX Electrostatic Precipitators fill a triple role in their service to industry. Many varied phases of manufacture depend on Koppers-Elex to remove nuisance impurities from industrial gases, to improve gas for use, to recover valuable materials for re-use or sale. In any of these applications, the choice of progressive management is for the high efficiency of Koppers-Elex Electrostatic Precipitators.

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Please send Operational Data Form which we can use to outline our precipitator requirements.

Name
Company
Street
City Zone State

and noncertificated lines also have contract divisions.

• **Still Small**—Despite the rapid growth of the airfreight business, it still seems small compared to the passenger end. The major airlines rely heavily on their passenger flights for carrying freight. American Airlines, for example, operates only 16 all-cargo planes. United has only 12. Slick Airways, the largest noncertificated carrier of airfreight, owns 14 converted warplanes.

But everybody in the airfreight business is convinced that it has a tremendous growth still ahead of it. Air shipment of food, particularly, is mentioned as a good bet for the future.

• **New Cargo Plane**—Enthusiasts believe that rates will go much lower eventually. Just when depends on a lot of factors. One of the most important is the development of special planes for freight (at present airfreight travels in converted passenger or war planes).

If that's the case, the industry should have been happy last week. Douglas Aircraft Co. said it would produce a version of the DC-6 especially designed for freight.

The DC-6A will be a little bigger than the DC-6. It will have two huge cargo doors—one forward and one aft of the wings—and a built-in freight power lift for direct loading and unloading from trucks or platforms. Payload will be 15 tons.



Industrial Screen Test

Shipping costs are not confined to freight rates alone. Damage in transit often adds to the expense. To develop a new science of packing and crating—and counteract the vibration and shock of faster freight trains—Westinghouse Electric Corp. engineers are making movies at both ends of this big transformer's journey. From the films they will study what happens to equipment after a long trip on a flat car.

Well Kept Bacon

Hormel Institute finds way to can bacon for Quartermaster Corps without loss of quality. Quantity production is problem.

The most profitable way to market food is to package it. Nicely tricked up in a can or bottle it has better eye appeal, fetches a better price.

Bacon is one food that thus far hasn't quite made the packaging grade all the way. But this week it looked as if there might be a change some day—thanks, in part, to the Army's interest.

Until World War II, the Army, which proverbially travels on its stomach, traveled on beef. Neither pork nor bacon formed a part of standard Army provisions. Those meats spoiled easily, were too hard to keep.

• **No Bacon**—American meat packers did succeed in canning hams and luncheon meats. U. S. troops overseas ate a lot of ham. But when it came to canning or preserving bacon for overseas shipment or long storage, packers were still not able to solve the problem when this war ended.

Quartermaster Corps' specialists had found that vacuum packing kept bacon from turning rancid in the high temperatures of the South Pacific. But bacteria remained and multiplied rapidly in 100-deg. heat. Temperatures which were high enough to kill bacteria by sterilization rendered the bacon down to lard. Adding enough salt—5% to 6% (compared with 2% to 3% in ordinary bacon)—made it too salty.

• **Problem Licked**—After the war, the Hormel Institute of the University of Minnesota Graduate School started probing into the mysteries of bacon for the Quartermaster Corps. Now after two years, the institute says that it has the answers. A new process produces bacon that meets all the Army requirements: The canned sliced bacon does not turn rancid; is not subject to bacteria spoilage; and stays edible when kept for long periods at room temperatures, or at temperatures normal in the South Pacific.

To retard bacteria growth, moisture is first extracted by a vacuum process. Then several edible agents that hinder bacteria growth are added. Enough salt to keep the bacon but not enough to hurt the taste—about 2½%—is used for curing. Result: A vacuum-packed bacon that the Hormel men claim is still edible after it has been in an incubator at 100 F for nine months.

The new bacon is strictly a laboratory product. Ways and means of making it for commercial distribution have still to be developed.

ASK
STOKES

Who has the Successor to PENICILLIN?

PENICILLIN was first dried under commercial conditions... at the Stokes plant, in Stokes freeze-drying equipment, by Stokes engineers. Today Stokes freeze-drying equipment in many laboratories of America and other countries is answering the world's demand for penicillin.

Other Stokes equipment for higher vacuum and chemical processing is answering many industrial needs, and will answer still more.

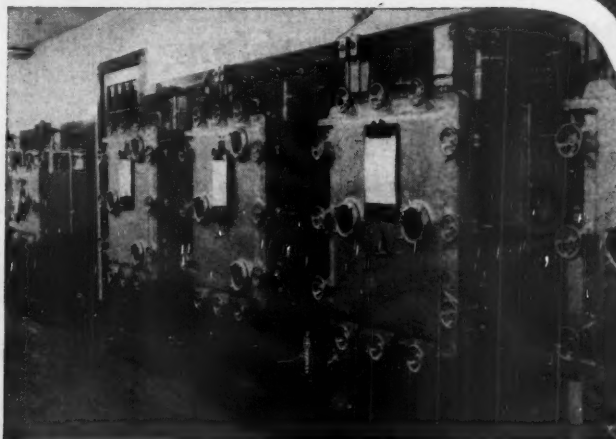
What have you that needs development from the laboratory to commercial production? . . . that needs testing, proving, pro-

duction planning, costing before it is ready for the world to use?

Stokes has the semi-plant-scale laboratory, the engineers, and complete facilities to supply the answer to your problems. Forty years of experience in the full range of higher vacuum processing is at your service.

Stokes also makes Chemical and Food Processing equipment, High Vacuum Pumps and Gages, Vacuum and Atmospheric Dryers, Pharmaceutical equipment, Tablet Machines, Water Still.

F. J. Stokes Machine Company,
5956 Tabor Road,
Philadelphia 20, Penna.



Stokes freeze-drying chambers for penicillin at plant of Sharp & Dohme, Inc., Glenolden, Pa.

STOKES

KNOWS
HOW

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Do More**
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Mall Saw
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- Sanding
- Grooving
- Grinding

Wire Brushing

6" Blade
2" Capacity



Table Stand
for
MallSaw
1 15/16"
Capacity



6" Blade
2" Capacity



This one tool with its companion all-metal table stand, complete with miter guide and rip fence, equips you with a hand saw and table saw that will cut everything from wood to steel. Other interchangeable accessories convert it quickly and easily into a shaper . . . face or drum sander . . . wire brush . . . or grinder. 3 larger MallSaws with 2 1/4", 2 7/8" and 4 1/2" capacities also available.

Ask Your Dealer or Write for Free Booklet.

MALL TOOL COMPANY
7768 South Chicago Ave., Chicago 19, Ill.

**Every MOTOR Problem
Is A Challenge To Our
Engineers...**

When a manufacturer calls us in to design a motor for a product, he gives us an important role in helping determine the future of that product.

Applying skill, ingenuity and long engineering experience, we set out to develop a motor that will provide the ultimate in product performance.

This acceptance of a challenge is another reason why more and more of America's finest products are being powered with Lamb Electric Motors. THE LAMB ELECTRIC COMPANY, Kent, Ohio.



This series universal motor with inbuilt gear reduction and drive shaft at right angles to the armature shaft can readily be applied to devices requiring a slow speed motor drive.

Lamb Electric

SPECIAL APPLICATION
FRACTIONAL HORSEPOWER MOTORS

Fuller's Sideline

Famed brush company adds cosmetics to its door-to-door line. Specially trained women will sell them.

During the war years Fuller Brush men took on another job—beauty counseling. The Fuller Brush Co.'s production was going to the armed forces. To keep its big dealer organization together Fuller built up a substitute business, cosmetics. At the war's end the company began to let go its cosmetics line and concentrated on getting back its highly profitable business in brooms, brushes, mops, and household cleansers.

• **Back for More**—This week Fuller is back in cosmetics. In Connecticut, Massachusetts, and the metropolitan New York area, 500 Fullerettes, saleswomen trained for the new job, are selling the nationally advertised Debutante line of cosmetics, toiletries, and toilet soaps. Debutante was launched by Daggett & Ramsdell a year ago; Fuller intends to go national on it as soon as enough Fullerettes can be trained.

Fuller's move was a surprise to the trade—particularly at this time, because cosmetics are considered to be somewhat in the doldrums. Fuller's reasons:

- Its wartime success with cosmetics.
- The success of two established door-to-door cosmetics companies—Avon Allied Products, Inc., and J. R. Watkins Co. Last year Avon Allied, which also sells household cleansers and food products, grossed \$18.1-million, netted over \$1-million.

- The need for diversification.
- **Help for "Dealers"**—Another factor that carried a lot of weight is that Fuller's 7,000 franchised dealers need an additional source of profit. (The house-to-house salesman is called a dealer; he buys his stock from Fuller, then resells it.) Dealer profit today averages only \$70. That's low enough so that quits have been too high recently—and high turnover means green salesmen, which cuts sales.

The Fullerettes will work for the dealers, thus boosting their income. Also, Fuller believes, many dealers' wives will take jobs as Fullerettes.

- **Effect on Store Sales**—Daggett & Ramsdell feels that, in addition to selling a lot of Debutante products themselves, the Fullerettes will boost retail sales of Debutante in department stores. What the department stores themselves think of the deal is another matter. Last week the National Retail Dry Goods Assn. warned its members that house-to-house selling is growing at an alarming rate—and that this growth poses a serious threat to the stores' own sales.



Ready-built, Adaptable Space
Available Now at these

STRATEGIC LOCATIONS

Write, wire or phone today to the address below for complete details and descriptions of these first-class plants and facilities now being offered for sale or lease. *Be sure to mention Plancor number.* Inspections can be arranged at your convenience. Information on how to submit your bid together with required bid forms can also be secured at this address. These plants are typical of other equally desirable facilities currently available.

★ ★ ★

Some plants may become subject to the provisions of the National Security clause, whereby the Federal Government retains dormant rights to utilize the facilities for production under Government contract. In the event that this dormant right is exercised, the Government will consider the qualifications of the buyer or lessee to carry out such contracts. These plants are part of the production facilities being offered to private enterprise.

EASTERN STATES

LOCATION	SQUARE FEET	PLANCOR NUMBER
New Castle, Delaware	5,000	628
Belle Meade, Virginia	1,000	1,465
Farmingdale, L. I., New York	33,488	WD-387
Hoboken, New Jersey	86,800	Nord 1,023
Worcester, Massachusetts	52,000	NOD 1,765
Providence, Rhode Island	835,770	MC-10,849

MIDWEST OR SOUTH

Painesville, Ohio	7,800	1,716
Humboldt, Iowa	31,000	1,531-10
Clinton, Iowa	9,800	2,060
Detroit, Michigan	32,400	4
Greenbrier, Kentucky	7,075	1,902
Bay City, Michigan	105,000	988
Henryetta, Oklahoma	55,000	1,023
Cleveland, Ohio	54,600	1,073
East St. Louis, Illinois	120,290	1,073
Toledo, Ohio	350,000	WD-335
Platteville, Wisconsin	6,700	1,906

WEST COAST

Seattle, Washington	51,700	NOD 1,992
Portland, Oregon	30,200	1,812
Renton, Washington	140,000	303
Newark, California	20,000	1,295
Torrance, California	918,000	226
Seattle, Washington	416,000	WD-1,024
Downey, California	608,800	WD-695

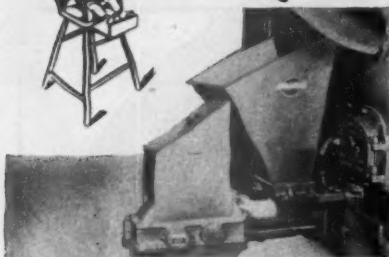
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936-11

CANTON STOKER pays for
itself in 1 year at
Ohio Chair
Factory



Williamsburg Chair Factory, Williamsburg, Ohio highly recommends Canton Stokers and the engineering help that went with the installation. (Canton developed an ingenious blower system utilizing sawdust and shavings to lower fuel costs.) The Canton Stoker is now in its 9th year of economical operation and Williamsburg executives report, "100% satisfaction in every respect."

Get low cost, dependable heat and power for your plant or business building from now on. Representatives in principal cities for immediate service, prompt delivery all sizes. Write for descriptive data. CANTON STOKER CORP., MAIN PLANT, CANTON 2, OHIO.



The ONLY ramfeed stoker drive guaranteed against WEAR and defects for 5 years!

Your Plans are Ready
Order a VOKES
STANDARD BUILDING



Build for Harshaw Chemical Co.

The All Purpose Building

- For all types of manufacturing, assembly, printing, warehousing
- Engineered for Cranes or Monorails
- Any length, in 20 ft. bays
- Clear-Span Trusses, 40, 50, 60, or 80 ft.
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Standardization always means faster delivery and more building space for your dollar. Write, wire or phone today.



The
H. L. VOKES COMPANY
1010 Wayside Road, Cleveland 10, Ohio



TRAINING SALES MANAGERS is key part of . . .

Chevrolet's Battle Plan

To fight off Ford challenge and stay in No. 1 spot, it is in midst of campaign to build up a hard-hitting sales force. Dealers' sales managers get instruction in how to guide salesmen.

Last month Ford Motor Co. made public the 1949 model with which it hopes to regain sales leadership from General Motors' Chevrolet Division.

Last week Chevrolet let the auto trade have a look at the aggressive sales tactics with which it will fight to hold the No. 1 spot.

Chevrolet is in the midst of a campaign to put its dealer organizations in fighting trim—staffed with topnotch sales managers and salesmen who know all the answers to competitive selling problems. This kind of armament doesn't come cheap; it's costing Chevrolet more than \$400,000. By fall, the company hopes, the plan's effects will have reached into every one of its 6,100 direct outlets.

● **Targets**—Here are the main objectives of the Chevrolet drive:

(1) To give today's 2,500 agency sales managers a good grounding in the principles and techniques of retail sales management and selling.

(2) To help them enlarge their present force of about 4,000 salesmen to twice that number by the end of the year, and to more than 15,000 by the time they really have to sell new cars (prewar the dealers' sales force ran around 23,000).

(3) To teach them how to train their sales forces in competitive selling.

● **All-Out**—Chevrolet is used to doing things elaborately. And it has gone all-out on this drive.

It started in the spring, after months of preparation. Officials of the eight regions and 37 zones of the Chevrolet field organization came to Detroit to spend 84 days going through the same courses they would teach later.

Then these officials went back to their home areas; there they're deep in heavy schedules of meetings with sales managers. They are passing along the 84-day courses to classes of 40 at a time. The students are dealers' sales managers; no others, not even dealership owners, are allowed in. The dealers' sales managers are grouped fairly uniformly by agency business potentials.

● **What's Taught**—The Chevrolet story is driven hard at each sales manager. The history of the company's "quality dealer program" is told, and how it helps sell cars. There's a full analysis of his job as sales manager—how he should obtain and train salesmen; how to develop prospect lists; how to handle advertising and promotion; how to direct used-car activity.

To put all this across and to highlight certain aspects, Chevrolet teachers fire charts, slide films, and sound movies at their audiences.

● **The Women's Angle**—In the lectures are the findings of many special research jobs.

One such was a study Chevrolet made of just how—and how much—women influence car purchases. Here's something it turned up: You can sell



He stakes his life on stainless steel

It takes plenty of nerve to lean on 40 stories of empty space with only a belt and two small metal hooks for support! And a man hanging out a skyscraper window needs lots of confidence in the vital safety hooks that hold his belt. In many modern buildings these hooks are made of ARMCO Stainless Steel.

This strong, rustless metal is widely used in severe service because of its proved durability. The strength and corrosion resistance of ARMCO Stainless—along with its gleaming, lasting beauty—make it a favorite for architectural uses and for many home and industrial products.

Every day some alert manufacturer turns to this lustrous steel to give his product new beauty and longer life . . . or to create something entirely new.

ARMCO Stainless is being used for sparkling table flatware, kitchen range parts, and in gutters and downspouts for homes and commercial buildings. And super-thin stainless—an ARMCO development—is going into weather-stripping, wrist-watch bands, spectacle frames and other handsome products.

Special grades of stainless are only a few of the extra-quality steels produced by Armco to help the manufacturer build stronger sales appeal and more satisfying service into his product. The ARMCO Triangle on a product means the steel was selected for a particular type of service. That's why so many buyers look for the famous trademark when they buy. Armco Steel Corporation, 388 Curtis Street, Middletown, Ohio. Export: The Armco International Corporation.



ARMCO STEEL CORPORATION

THE FAMILIAR ARMCO TRIANGLE IDENTIFIES SPECIAL-PURPOSE STEELS THAT HELP MANUFACTURERS MAKE MORE ATTRACTIVE, MORE USEFUL, LONGER-LASTING PRODUCTS

Your guidepost to wise Low-Annual-Cost Construction



BUILD IT With CONCRETE

CONSTRUCTION that is moderate in first cost and that lasts long years with little maintenance expense is a wise investment because it is **low-annual-cost** construction. Concrete meets all these requirements. Besides, it's firesafe; it can't burn!

Concrete homes, of any style or size, provide a lifetime of comfortable living at **low annual cost**. Schools, hospitals, apartment houses, factories, public and commercial buildings can be built economically, durably and distinctively with concrete.

Concrete farm buildings and improvements, being firesafe, ratproof, decay-proof, wind and weather resistant, help farmers save feed and labor and increase food supplies.

Concrete pavements serve for years at **low annual cost** to taxpayers and usually cost less to build than other pavements of equal load-carrying capacity.

Concrete pipelines in water, drainage and sewer systems safeguard health and serve home and industry economically by bringing in fresh water and removing wastes.

So whatever you plan to build, let your guidepost be "Build It With Concrete"—the **low-annual-cost** construction material.

PORTLAND CEMENT ASSOCIATION

33 W. Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work

on the same points that attract men—engineering as well as styling—as long as you talk a language the women understand.

• **Manager Becomes Teacher**—When he graduates from the 84-day course, each sales manager leaves for home with a complete salesmen-training kit. From there on, he is on his own. He can run instruction courses for his salesmen whenever and however he wishes.

His kit consists of 13 charts, 15 slide films with sound, and, if desired, three 16-mm. motion pictures. They cover such subjects as:

(1) What psychological factors cause people to prefer one product over another?

(2) How do you find real prospects? (Definition: A prospect is a man who can afford to buy, who wants to buy, and who intends to buy in a reasonable period.)

(3) How do you close a deal?

(4) How should you handle used-car trade-ins?

And many others—including the sales points and mechanism of the Chevrolet.

• **Lesson From Past**—Chevrolet was no slouch before the war in training salesmen. The training job was a part of the "quality dealer" program—which helped make many a competitor eye Chevrolet's merchandising setup with envy.

The postwar selling staff, headed by T. H. Keating, Chevrolet general sales manager, went over the previous job in detail. They think they spotted one flaw: Chevrolet had trained salesmen and had given them a lot of sales helps; but it had not put much stress on the fact that salesmen need direct and daily supervision. Keating's people found Chevrolet hadn't been doing enough to help the dealers' sales managers keep their salesmen in fighting fettle.

• **Staff**—Chevrolet thinks that—with alert and well-instructed sales managers—the 15,000-18,000 sales staff it is shooting for will be just as effective as the prewar 23,000.

This idea of a smaller but harder hitting force ties in with another company aim—to make auto selling worthwhile enough to attract higher caliber men.

• **Reaction**—How does the dealer organization go for Chevrolet's postwar plan? From what the company has heard so far, the answer is: Fine.

Dealership owners have clamored to get into the classes; they are being held off until all sales managers have been trained. Orders for salesmen-training kits—which the dealers buy at cost (about \$100)—have been filed by practically all dealers.

The program's real test comes, of course, when the big job is to sell cars—not just produce them. When that time comes, Keating is betting that Chevrolet will still be leading the pack.

Wool Trade Asks FTC for Help

Manufacturers and sellers of woolen goods asked the Federal Trade Commission for help last week. The industry wants FTC to issue trade-practice rules for guidance in the promotion and sale of shrink-resistant woolens. Big chemical companies who make the treating compounds joined in the request.

• **A Laggard**—Shrink-resistant processes were little used in the United States before World War II—though British mills had featured them for nearly 50 years. The idea took hold here during the war years because of the armed forces' success in using shrink-resistant materials—first for socks, later for other clothing items as well.

After the war, Botany Mills, Inc., the Forstmann Woolen Co., Pacific Mills, and Pendleton Mills, among others began to use the shrink-resistants. But advertising and promotion of some compounds, and some treated fabrics, were deceptive and misleading.

• **Petitioners**—Among those who joined in the request to FTC: American Wool Council, National Retail Dry Goods Assn., National Hand Knitting Yarn Assn., Industrial Council of Cloak & Suit Manufacturers, Underwear Institute, Harris Research Laboratories, Monsanto Chemical Co., C. C. Valen-

tine & Co., and Sharples Chemical Inc. They are asking for quick issuance of trade rules, even though on a temporary basis, in time for the fall and winter woolen-selling season.

THE VACATION MARKET

Americans will spend \$8-billion on pleasure travel this year, according to a survey just released by Curtis Publishing Co. In an effort to tap this rich vacation market, 191 community and state groups will ante up some \$7-million for advertising and promotion—which won't hurt Curtis Publishing's Holiday.

The Curtis survey lists the organizations planning expenditures for magazine, newspaper, radio, outdoor, and direct-mail advertising, and each group's budget. These range all the way from the \$409,000 to be spent by the Florida State Advertising Commission to the \$185 budgeted by the Block Island (R. I.) Chamber of Commerce.

Businessmen weighing the value of contributions to community-promotion programs will be interested in Curtis' arguments in favor of advertising by civic groups. Says Curtis: Besides the immediate benefits to business of tourist spending, visitors' expenditures pay a large part of the taxes collected in many areas. Also, an increase in vacation patronage means greater local employment—greater local buying power.

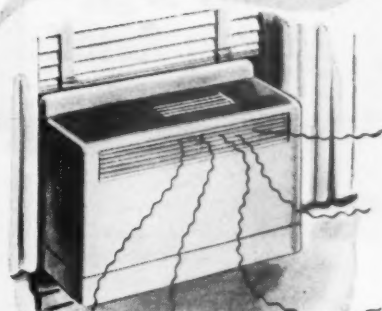


Spare Parts and Bandages for a Friend In Need

To keep its big trailer-trucks rolling, West Coast Fast Freight, Inc., operates three safety-patrol panel trucks. The patrolmen, however, do more than mend distressed company vehicles—they also give assistance to motorists. The rescue trucks equipped

with fire and first-aid equipment, spare parts, and fuel, stop to help troubled travelers without being flagged. From this gesture the company hopes to get (1) more customers, (2) safer roads, (3) increased tolerance for trucks on the highways.

UNSEEN SOURCE
OF COMFORT



Moving Air

**exchanges heat
for comfort**

• Did you ever tug at your collar on a hot sticky day, wishing you could trade that roomful of heat for fresh mountain air?

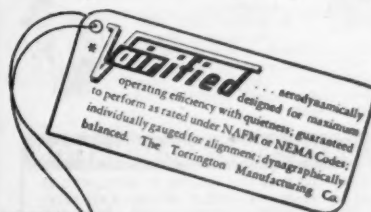
With a room air conditioner you can attain this. Every day—all day, fresh, clean, cool, dehumidified air is yours by merely turning a button.

This comfort is in a large measure dependent upon the air impellers within the unit—they must supply the air quietly, and in the correct volume.

Whether you are a manufacturer—retailer—or buyer of a room air conditioner or any type of cooling or heating equipment, you should take advantage of the benefits provided by Torrington Vairified® Air Impellers.

Vairified fan blades and blower wheels are scientifically designed and engineered in full accord with the latest principles of aerodynamics. They deliver a maximum amount of air, quietly and dependably. The Vairified Tag is your assurance of quality and performance in any type of heating, cooling or ventilating equipment.

Sales engineers in all principal cities.



**THE
TORRINGTON
MANUFACTURING
COMPANY**
TORRINGTON
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How to get Better Results from your talks

Here's a dynamic method to help you *interest, convince and move people to action* with your talks. It shows you, in condensed, to-the-point style, how to organize and present your speeches . . . how to solve everyday speaking problems. It gives you the same short-cut method top-notch business men use to "sell" their ideas—whether to an individual, a board, or a large audience.

SPEAK WELL —AND WIN!

A Short Cut to Results
by
William P. Sandford

Director of Sales Training for the Illinois Agricultural Association and subsidiary companies.

169 pages, 15 illustrations, 8 charts, \$2.50

This book gets results as soon as you put it to work. With an entirely new approach it presents four commonsense fundamentals of effective speaking—presents them so that you can use them right away to get more sales for your company . . . to create cooperation among employees, club members and all other groups . . . and to fire your audience with an ideal. Its "practical hints" for speakers is tailor-made for you.

Used by business leaders

C-I-M-A represents the basic principles of effective speaking. With this tested, sure-fire formula, drab and lifeless talks can be turned into sparkling, live, **EFFECTIVE TOOLS** to get your ideas across. Men like Richard C. Patterson, Jr., James G. Conselman, Bruce Barton, W. J. Cameron, W. P. Sandford, W. E. Holler, G. L. Mast, Jr., Walter S. Gifford, Willard Chevalier, Eric A. Johnston—have gotten peak results from this simple, clear method of speaking. So can you! Read and use this vital, practical method to **SPEAK WELL—AND WIN!**

THINGS THIS BOOK CAN DO FOR YOU



- Opens up new contacts for you.
- Makes even your everyday conversations influence people.
- Helps you sell your views to committees, boards and superiors.
- Enables you to sway your audience at public meetings.
- Builds your self-confidence, sharpen your thinking processes, develop your personality.
- Helps you "put before" your superiors your qualities of leadership.



10 DAYS' FREE EXAMINATION

McGraw-Hill Book Co., Inc., 330 W. 42 St., NYC 18
Send me Sandford's **SPEAK WELL—AND WIN!** for 10 days' examination on approval. In 10 days I will send \$2.50 plus a few cents postage, or return book postpaid. (Postage paid on cash orders.)

Name

Address

City and State

Company

Position BW 7-10-48

FARM MECHANIZATION



ROW AFTER ROW, I.H. picker plucks its way through, doing work of 30 field hands

More Cotton Pickers on Way

International Harvester's assembly plant at Memphis expects to turn out 1,000 machines during 1948 cotton crop year.

In the sweltering southern tip of the Rio Grande Valley this week, cotton planters got their usual head start on the picking season. And as in every year since the war's end, it was apparent that mechanized picking was making deeper inroads. More and more, the cold steel fingers of mechanical cotton pickers are taking the place of callous-fingered pick-aninnies.

In Memphis, Tenn., the plant of one company making these machines was humming at top speed. International Harvester Co. said that it expects to turn out 1,000 of its model by Nov. 1.

• **Boosted Output**—International Harvester first started making its cotton picker in limited quantities in 1942. It wasn't until recently, when I.H. opened a new, \$29-million assembly plant in Memphis, that production swung into high gear. About 30 pickers a week are now coming off assembly lines. Most go to big plantations; the \$7,180.75 f.o.b. price is still too stiff for the small farmers.

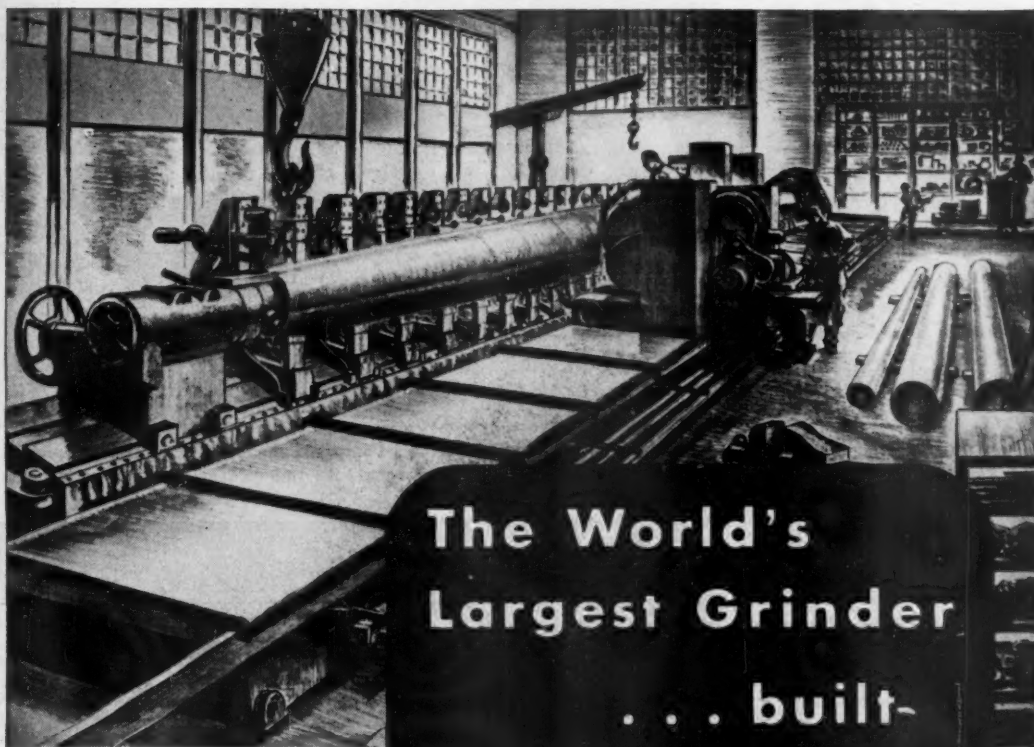
Next year, however, more small plant-

ers may get in theiricks at mechanized picking. International Harvester hopes to be able to supply picking machines to operators who will rent them out on a contract basis.

• **Advantages**—Although cotton picked mechanically is a half to one grade behind hand-picked cotton, the cost savings created by the machines are tremendous. One does the work of some 30 field workers. A typical report of the machine's value comes from planter W. B. Lacy of Jonesboro, Ark. Lacy says that he picked his 1947 crop for \$4.50 a bale; hand picking would have cost \$45 a bale.

I.H. is confident that any early opposition to mechanical picking was washed away with the wartime migration of southern farm labor to cities. It is gearing production accordingly. Right now, the Memphis works, which also turns out other farm machinery, employs about 2,000. I. H. expects this will soon be 3,000.

For a description of how I.H. builds its picker, turn to page 72.



The World's Largest Grinder ... built- by Norton

HERE you see the world's largest grinder receiving its final runoff test on one of the assembly floors of the Norton Machine Division. It handles huge cylindrical work as long as 68 feet and up to 36" diameter—and grinds such work to tolerances measured in fractions of a thousandth of an inch—approximately a tenth the thickness of this page.

The other extreme in the Norton line of cylindrical grinders is the tiny 4" Type C. There are also Norton machines for surface grinding, tool room grinding, and such special work as automotive crankshafts and camshafts. And for producing still greater dimensional accuracy and higher surface finish, there's a line of Norton Lapping Machines—for both flat and cylindrical work.

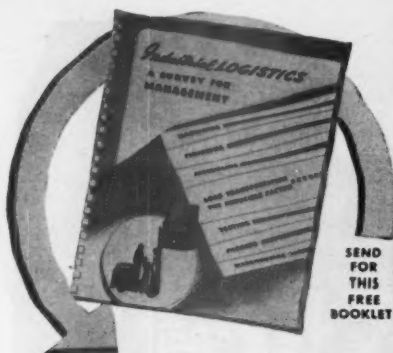
You'll find every Norton machine expertly designed, expertly built, expertly serviced.

NORTON COMPANY, WORCESTER 6, MASS.

(Behr-Manning, Troy, N. Y. is a Norton Division)

NORTON GRINDERS
and Lappers

ABRASIVES • GRINDING WHEELS • GRINDING AND LAPPING MACHINES • REFRACTORIES • POROUS MEDIUMS • NON-SLIP FLOORS
NORBIDE PRODUCTS • LABELING MACHINES • BEHR-MANNING DIVISION COATED ABRASIVES AND SHARPENING STONES



SCIENTIFIC Materials Handling fully explained

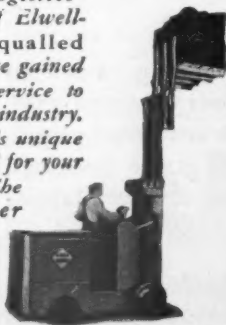
44 illustrated pages describing "Industrial Logistics—A Survey for Management".

INDUSTRIAL LOGISTICS is the science of assembling and handling materials to insure maximum economies in Procurement, Production and Distribution.

ACHIEVED by using Elwell-Parker Industrial Truck Systems to carry the basic containers (Boxes, Barrels, Bags or Bales) in master unit loads on pallets or skids. *An Elwell-Parker man engineers the job.*

RESULTS in Faster Production, Increased Safety, NEW Profits.

"Industrial Logistics" is net result of Elwell-Parker's unequalled truck experience gained by 42 years' service to 300 branches of industry. To profit by this unique knowledge send for your booklet now. The Elwell-Parker Electric Company, 4535 St. Clair Avenue, Cleveland 14, Ohio.



ELWELL-PARKER

Power Industrial Trucks
Since 1906



1 Basically I. H.'s cotton picker is a Farmall-M tractor. They arrive completely assembled at Memphis works. Component parts are funneled in from fabricating plants



2 First assembly step is to remove steering wheel and seat, reverse and remount them. This makes the tractor's rear the picker's front. Framework to support basket is added



3 Picker basket, assembled from component parts, is set on supports. Basket can hold 750 lb. of seed cotton, which is whisked through blower pipe. Then . . .

Here's Help

to make your basic problems shrink
... and profits grow



For each of four principal problems of management — property, production, transportation and sales — there are Sonneborn products to help make those problems shrink ... and your profits grow.

Whether your problem of the moment is to "weather-protect" or "wear-protect" a building, to manufacture an ointment, cold cream or insecticide, to lubricate a fleet of trucks, or produce a better blan-

ket ... you can benefit from the extra values Sonneborn builds into its highly refined oils and chemicals.

Below are four typical free catalogs and bulletins which bring you news of recent Sonneborn developments and will help you put Sonneborn products to work to: protect and preserve property • improve processing and production • lower costs of transportation • or increase customer demand and preference.

SONNEBORN

... Oil Refiners and Manufacturing Chemists

Serving Four Basic Management Problems

PROPERTY

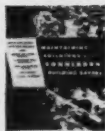
• PRODUCTION

• TRANSPORTATION

• SALES

CHECK LITERATURE YOU WANT AND MAIL COUPON NOW

BUILDING
PRODUCTS
DIVISION



WHITE OIL and
PETROLATUM
DIVISION



AMALIE
LUBRICANTS
DIVISION



TEXTILE
CHEMICALS
DIVISION



PROTECT AND PRESERVE PROPERTY — Quick, easy, economical ways to construct and maintain floors, walls, ceilings, roofs, etc., with Sonneborn "Building Savers".

IMPROVE PROCESSING AND PRODUCTION — Specific properties of Sonneborn Refined Petroleum Products suitable for a wide range of product and processing applications.

LOWER COSTS OF TRANSPORTATION — The fundamentals of good lubrication for gasoline-driven fleets and Diesels; how AMALIE Motor Oils and Lubricants give more protection.

INCREASE CUSTOMER DEMAND AND PREFERENCE — How Fybrol 1115 (one of many Sonneborn products for textile processing) improves mill efficiency and woolen fabrics.

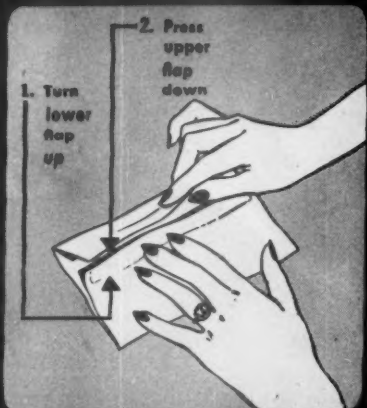
L. SONNEBORN SONS, INC., Dept. BW 2, New York 16, N. Y.

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COMPANY.....

ADDRESS..... ZONE..... STATE.....

SELF SEAL — the envelope
that seals without licking



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UNITED STATES ENVELOPE CO.
Springfield 2, Mass.
13 MANUFACTURING DIVISIONS
LOCATED FROM COAST TO COAST
See your Printer or Paper Merchant



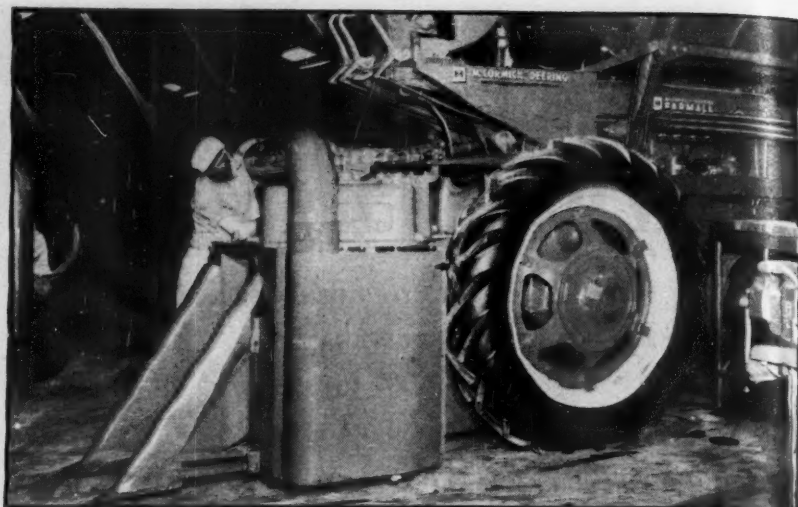
Back up your "Warning" with a
BACKBONE OF STEEL

Realock® Fence provides maximum protection with a minimum of maintenance. Made of steel wire, heavily galvanized, it is tamper-proof and weather-resistant. Special designs for industrial plants, institutions and residences. For catalog and free estimates write our nearest office.

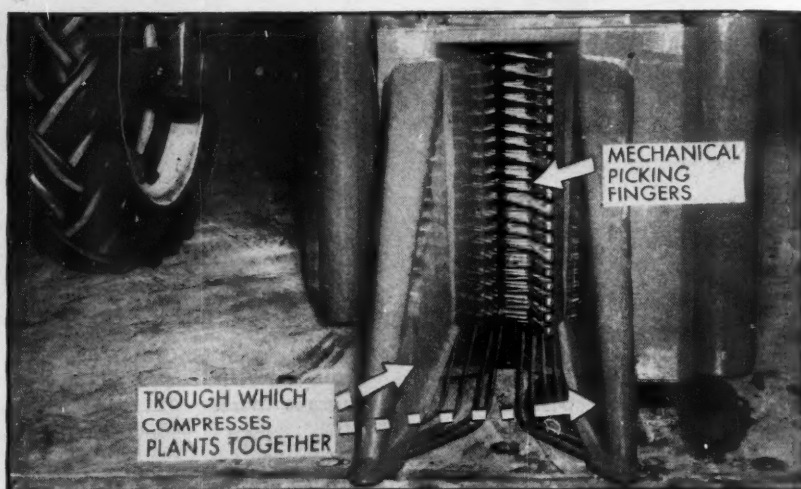
© Reg. U. S. Pat. Off.



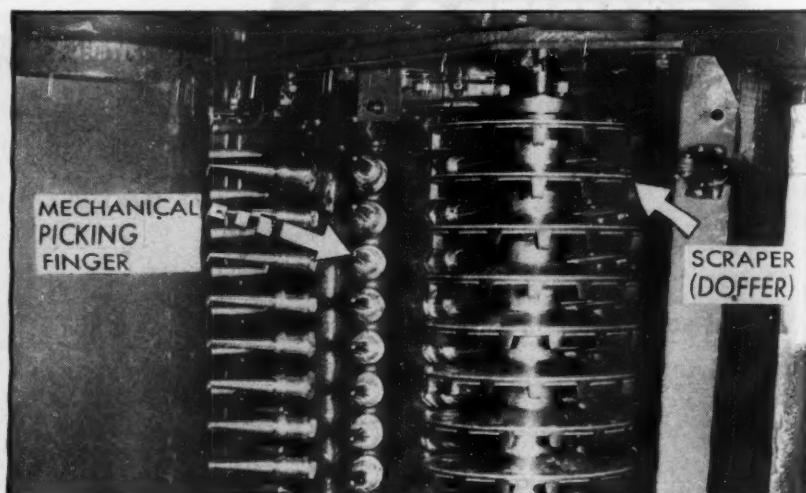
WICKWIRE SPENCER STEEL DIVISION
387 DELAWARE AVENUE, BUFFALO 7, NEW YORK
THE COLORADO FUEL AND IRON CORP.
CONTINENTAL OIL BUILDING, DENVER 1, COLORADO
THE CALIFORNIA WIRE CLOTH CORP.
1000 17TH AVENUE, OAKLAND 12, CALIFORNIA



4 Picker unit is attached to front end. This piece of machinery is made and assembled at I.H.'s refrigeration division at Evansville, Ind., and shipped to Memphis as a unit

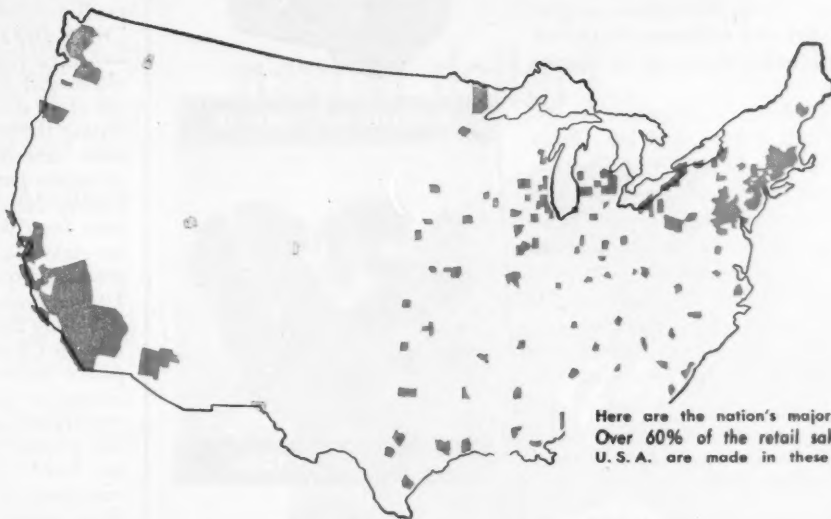


5 This boll weevil's view of approaching picker shows mechanical picking fingers which rotate at a speed synchronized with tractor's. Bolls are nipped off and pass to . . .



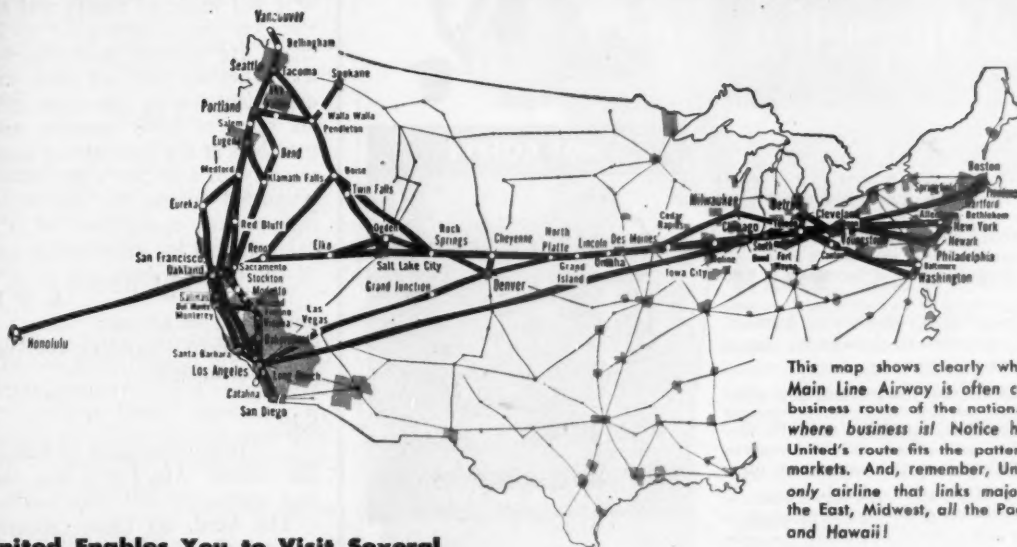
6 . . . Second set of fingers which rotate and feed in and out in oval path. Barbs on fingers catch lint. Doffer pulls cotton off fingers. It's then whooshed to basket

This is where the nation buys



Here are the nation's major markets.
Over 60% of the retail sales in the
U. S. A. are made in these counties.

United is the route that goes there



This map shows clearly why United's
Main Line Airway is often called "The
business route of the nation." It goes
where business is! Notice how closely
United's route fits the pattern of mass
markets. And, remember, United is the
only airline that links major cities of
the East, Midwest, all the Pacific Coast,
and Hawaii!

United Enables You to Visit Several Cities on a Round-trip Ticket to One

United has many optional routes that permit you to make a complete circuit of branch offices or customers, with stop-overs where you wish. For one example, you can visit Toledo, Detroit, Cleveland, Washington and Philadelphia on a round-trip ticket to New York from Chicago or anywhere West. At no extra cost, you cover extra territory. It's a United "plus" that saves days and dollars.

And don't forget, DC-6 Mainliner 300 fares are surprisingly low — other Mainliner fares even lower. Call United or your travel agent.



PASSENGERS • MAIL • EXPRESS • FREIGHT

CERTAIN plastics applications call for a given property, or a given combination of properties, in greater degree than is available in general-purpose materials. Because Durez plastics are chemically compounded phenolic materials, they permit structural manipulations which make them extremely versatile. These illustrations suggest how the simplicity and economy of molding with Durez are being extended to special applications.

Quite often a discussion between the design engineer, the molder, and the Durez field man has produced ideas that improve products, reduce costs, and add new sales appeal. Besides our long experience in helping to solve plastics problems, we offer you today the advantages of greatly increased output and perfected control of uniformity. If you'd like to see what other manufacturers are accomplishing with Durez, let us send you "Durez Plastics News" each month. Durez Plastics & Chemicals, Inc., 407 Walck Road, North Tonawanda, N. Y.

Export Agents: Omni Products Corp., 460 Fourth Avenue, New York 16, N. Y.

For UNUSUAL plastics problems Durez has

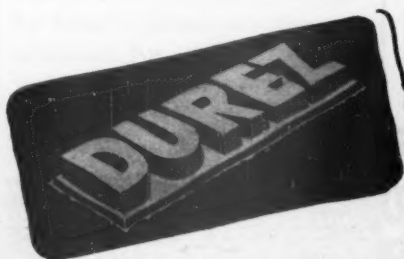
special properties

RAYON SPINNING. Heart of the machine that manufactures synthetic rayon from viscose is this thread-advancing reel. Operating under continuous tension, the Durez reel is unaffected by water, acid, desulphurizing liquid, bleaching solution, oil, or heat. Reel's fingers retain satin-smooth finish after years of operation.

HARSH ACIDS. Molded of another special-property Durez, these acid pump impeller parts can be machined, sanded, buffed. Chemical resistance enables the parts to give long service without corrosion.

HOT COFFEE. Like the glass bowl of the Cory coffee brewer, heat-resistant Durez plastic cover is chemically inert to boiling water infused with coffee, leaves the beverage flavor uncontaminated. Easy to clean . . . cool to touch . . . attractively modern. Note other Durez parts.

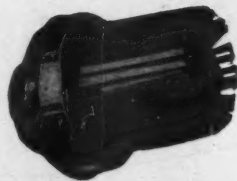
STEAM VAPOR. Durez housing of the DeVilbiss Electric Steam Vaporizer is resistant to alcohol and chemicals in medicinal spray, as well as to heat. Additional properties of the compound . . . moisture resistance and self-insulation . . . are also useful here.



PHENOLIC RESINS

- MOLDING COMPOUNDS
- INDUSTRIAL RESINS
- PROTECTIVE COATING RESINS

PHENOLIC PLASTICS THAT FIT THE JOB



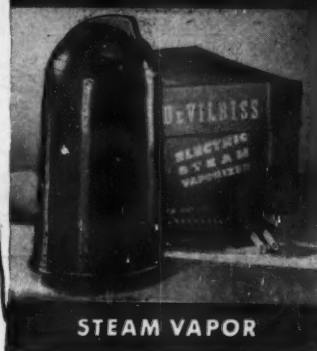
RAYON SPINNING



HARSH ACIDS



HOT COFFEE



STEAM VAPOR

READERS REPORT.

Quality

Sirs:

I was much interested in your Readers Report from Joseph D. Fox entitled "What Has Happened to Quality" (BW—Jun. 12 '43, p. 41). In his letter Mr. Fox challenged industry with an impressive list of 61 items which he had purchased during the past three years, all of which were defective. What challenged my attention particularly was the fact that kitchen cabinets headed his list, since I have been working with manufacturers for eight years on a program designed to maintain quality standards for steel kitchen cabinets.

Noting that Mr. Fox was located right here in Cleveland, I called him on the phone today and told him that I was curious to learn what kind of a cabinet would have such a cheap paint job that the enamel peeled off in a week. In our Steel Kitchen Cabinet Institute, I explained, we have 11 different tests for finish alone and, if not abused, the "tested and approved" steel cabinets should last for 20 years or more.

Mr. Fox explained, much to my relief, that the cabinets he had bought from one of the leading department stores were not made of metal, and that the store had since made good on his purchase. He seemed much interested to learn that our tests are made in an independent testing laboratory, that they are open to both members and non-members of the institute on exactly the same basis, and that a manufacturer is permitted to use the institute's copyrighted seal of approval on a line of cabinets that has satisfactorily passed all of the required tests. . . .

S. S. KEENEY

EXECUTIVE SECRETARY,
STEEL KITCHEN CABINET INSTITUTE,
CLEVELAND, OHIO

Sirs:

. . . We investigated and found that the cabinet [Mr. Fox's] was not metal and apparently not "top quality" . . .

The finish on Lyon cabinets must successfully go 11 different tests by an independent laboratory and the finish, under normal usage, is good for 20 years or more . . .

Similar protection is available on stoves, refrigerators, and other products, and the careful shopper can be sure that, if he shops for these protective products, he is not buying from a "get-rich-quick—sell-it-while-it's-hot" manufacturer . . .

Take the case of kitchen cabinets. White is one of the hardest colors to put on a product. We refer to white that will last without turning color or

that will not chip or peel. When new all cabinets are white and look nice on the dealer's floor. Not properly applied, the color starts to turn yellow in 30 to 60 days and it peels or chips. The difficulty, under these circumstances, is that all cabinets then get a black eye.

The important point we want to make on one of the products on the list of "What Has Happened to Quality?" is that top quality is still there by a number of reputable manufacturers, and that quality standards are even better than they were prewar.

LEONARD RHODES
LYON METAL PRODUCTS, INC.,
AURORA, ILL.

Sirs:

Attention: View with Alarm Dept.—
Re: "What Has Happened to Quality?" by Joseph D. Fox, Industrial Adv-
sors Bureau.

I guess Joe just doesn't live right!

M. K. HINKSON

DETROIT, MICH.

Seasonal Patterns

Sirs:

My colleagues and I have been im-
pressed with the interest in your article,
"New Seasonal Patterns in Industry"
[BW—Jun.12'48,p19]. This is the kind
of summary of changing statistical meas-
ures that we are interested in and would
like to call to the attention of our
students. . .

RICHARD L. KOZELKA

DEAN,
UNIVERSITY OF MINNESOTA
SCHOOL OF BUSINESS ADMINISTRATION
MINNEAPOLIS, MINN.

Cit-Con's Parentage

Sirs:

May we call your attention to a minor
error in the Lake Charles article so in-
terestingly presented [BW—Jun.15'48,
p72]? Cit-Con Corp. represents the
combining of Cities Service and Con-
tinental Oil companies rather than Fire-
stone and Continental.

DON V. EELLS

CITIES SERVICE OIL CO.,
PONCA CITY, OKLA.

"Splendid Picture"

Sirs:

On page 125 of your May 15 issue,
you have graphically presented a splen-
did picture of our United States trade
with Latin America.

We in this Regional Office of the
U. S. Dept. of Commerce would like
permission to reproduce this chart.

RAY L. MILLER

REGIONAL DIRECTOR,
U. S. DEPT. OF COMMERCE,
DALLAS, TEX.

What do you get for your payroll dollar?

THIS ANALYSIS OF PAYROLL DIS-
TRIBUTION IS THE COMPOSITE
OF A NUMBER OF TYPICAL
MANUFACTURING OPERATIONS



HERE YOU CAN SAVE!

While worker incentives, simplified processes and improved machinery have steadily re-
duced productive labor costs, similar progress
has not been made in handling materials and
work in process. Yet materials handling rep-
resents nearly half the activity of the average
plant.

Streamlining materials-handling methods
offers today's greatest opportunity for reduc-
ing manufacturing costs!

Whiting Crane Engineers can show you
how to handle materials and products effi-
ciently, without sacrificing floor space or
interfering with productive workers. Whiting
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Dependable • Quiet-Running • Durable

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WHY? Look at her posture! Seated all day on a STURGIS POSTURE CHAIR, she escapes "afternoon letdown". A Sturgis encourages erect, healthful, fatigue-defeating posture.

If the work turned out by your office staff lags late in the day, write us for literature on the complete Sturgis line. And ask your Sturgis dealer for a demonstration.



THE
AMERICAN
APPRAISAL
COMPANY



Valuations
Property Records
Replacement
Reserves

Over Fifty Years
of Service

FINANCE

Fewer, Healthier Millers

International Milling Co. buys out Midland Flour Mills to become second biggest in U. S. Move is continuation of 20-year merger trend to beat narrow profit margins by increasing volume.

Large-scale consolidations in the flour milling industry first became obvious in the mid-twenties. By today, 35 major companies operate more than 50% of the active flour milling capacity of the U. S. The three largest—General Mills, Inc.; International Milling Co.; Pillsbury Mills, Inc.—produce approximately

one-third of the nation's entire flour output.

• **The Latest**—Most recent consolidation was the sale last week of the Midland Flour Mills Co., Kansas City, Mo., to the International Milling Co., Minneapolis. Midland operates four mills in the Southwest with a total daily capac-



Selling Oklahoma to the Nation

Banks are going in for a favorite business-building tactic of the railroads—coaxing more industry into their areas. A firm believer that it pays off is the First National Bank & Trust Co., Oklahoma City. It has a special representative—Oscar Monrad (above)—who tours the nation and sings

the praises of Oklahoma. In keeping with his long trips, he has a long title: Vice-president of the Industrial Development Dept. & Public Relations. Monrad does much of his traveling by car; he handles all of his out-of-town correspondence and reports mechanically (via SoundScriber).

ity of 12,500 cwt. So the acquisition of the Midland properties gives International Milling a total daily capacity of 97,500 cwt. in its 21 plants in the U. S. and Canada.

That puts International safely in second place. (General Mills is still far out in front with a daily capacity of 133,000 cwt. in its 19 plants. Pillsbury is third with a daily capacity of 79,900 cwt.)

• **Narrow Profit**—The selling of flour in recent years has become increasingly competitive. It's a narrow profit-margin item. Intense competition between mills thus inevitably makes for mergers.

Prior to 1850, though, flour milling was free of competition. It was almost completely a family or local affair, with mills distributing their products in their immediate vicinity. Limited mill capacity and the lack of transportation and distribution facilities restricted competition between mills.

• **Quick Changes**—The last half of the nineteenth century brought tremendous technological changes in milling processes that created marked differences in flour quality and introduced for the first time a price factor. At the same time, mills began to establish flour brands. For the first time, the merchandising of flour became as important a part of the milling business as its manufacture. The growth of all forms of transportation brought nationwide distribution, wiped out all but the hardest of the small merchant mills.

In 1899, according to the Northwestern Miller, there were 9,476 merchant mills in operation. By 1948, the list had dropped to 2,160. Slightly more than 1,000 of the plants now account for 98% of all the flour produced in the U. S.

• **Home Baking Off**—Since 1900 there has been a steady decline in the number of merchant mills, the annual mortality averaging about 150. Because manufactured flour products were cheap and easy to get, there came a decline in home baking, the main outlet for flour produced by the small mill. Twenty-five years ago, 75% of all bread consumed was baked at home. Now home baking accounts for less than 25%. The commercial user of flour is now the miller's biggest customer, taking about 70% of all flour produced. The remaining 5% goes into industrial uses.

With the growing importance of the commercial baker, small mills were at a disadvantage. Their unit cost of production is much higher. And as the industry became more mechanized, the small mill found it hard to keep up with the big operator.

• **Uniformity**—In addition, bakers and other commercial users also demanded complete uniformity in their flour. Small mills found these tailor-made specifications tough. The business went to the larger mills which could operate

From prairie schooner



to HIGHWAY CLIPPER

A century ago, the sturdy Conestoga wagon rolled westward across the land... carrying the tools and furniture of an expanding nation. Greatest "land freighter" devised to that date, its fastening needs were essentially no more involved than those of the earliest wheeled vehicles.

Today, huge trailer trucks are everywhere helping diminish distances between farm and town, city and metropolis. The development of these sleek monsters has been speeded by the creation of hundreds of special fasteners to hold important parts in place on motors, chassis, bodies. A few of many we are currently supplying to the trucking and automotive industries are shown at the right.

Every day, more and more manufacturers are realizing that "Little things make a big difference." Give our design engineers a chance to show you where modern fastening devices can cut your costs, speed your production, help you to finer finished products. United-Carr Fastener Corp., Cambridge 42, Massachusetts.

UNITED-CARR FASTENER CORP.

MAKERS OF **DOT** FASTENERS



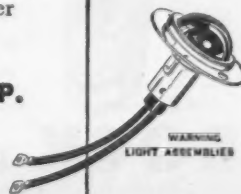
TEENUTS



MOULDING FASTENERS



CONTROL KNOBS



WARNING LIGHT ASSEMBLY

Full speed ahead!

ROCK ISLAND ENTERS ITS SECOND DECADE OF PLANNED PROGRESS...

... with a large fleet of Diesel-powered "Rocket Freights"

Increasing numbers of shippers throughout America are relying on Rock Island's fast, efficient freight service. Huge Diesel locomotives haul mile-long freight trains at express speeds. More than 23,000 Rock Island "package cars" annually give through service to L.C.L. shipments. Rock Island has 272 Freight Representatives, whose experience totals more than 3,600 years, strategically located in 71 cities. They are experts on packaging, marking and stowing methods, and on rates and routes.



... with 8000 miles of modern right-of-way in Mid-America

More than fifty million dollars has been invested by Rock Island during the past ten years in improving its right-of-way through 14 states. Curves have been straightened. Grades have been reduced. 1333 bridges have been built or rebuilt. Stations have been built or remodeled. Centralized traffic control and short wave radio have been installed. In short, Rock Island today is among the nation's leaders in modern freight and passenger service.

ROCK ISLAND LINES

Route of the Rockets

on a wider base, maintain adequate laboratories, and complete product control.

Thus, in addition to losing their best customers, the homebakers, small mills also have been pushed out of the race by the commercial bakers' business.

There have been other factors, too. For example, most small mills operate on a cash-wheat basis, do not hedge. A sharp drop in wheat prices could leave the smaller fellows with high-priced flour on their hands and virtual bankruptcy ahead of them.

• **Laboratory Needs**—Flour enrichment laws now in effect in 23 states have also added to the cost of doing business. Small mills lacking laboratory facilities have to buy laboratory assays to be sure that they are meeting enrichment requirements.

Finally, the large mills have heavily pushed brand consciousness. Gold Medal flour, for example, is being sold through newspapers, radio, and magazines and is available in every city and hamlet in the country. Without cost—and sometimes with premiums thrown in—customers can get recipe service, menu planning and other kitchen advice. The small mill cannot compete on those terms.

• **Capacity Stabilized**—While the number of mills has dropped steadily, the



New I. T. & T. President

International Telephone & Telegraph Corp. looked to outside talent to fill a top rung on its managerial ladder. The board of directors has elected Gen. William H. Harrison president of the company. Col. Sosthenes Behn, longtime chairman and president, continues as chairman and chief executive officer. Gen. Harrison moves to I.T.&T. Sept. 1 from American Telephone & Telegraph Co., where he is vice-president in charge of operations and engineering.

total daily capacity appears to be stabilizing somewhere near the 1948 level of 1,334,480 cwt., says the Northwestern Miller. In 1945, the last previous listing, 2,571 mills were catalogued with a daily capacity of 1,349,699 cwt. There were 3,001 mills identified in 1942, with an aggregate daily capacity of 1,391,145 cwt.

Capacity figures hovered around 2-million sacks during the first quarter of the century and did not begin to decline consistently until 1928. Since then, there has been an average net loss of about 30,000 cwt. per year. However, since 1945 there has been an average net decrease in capacity of only 5,000 cwt.

To some extent, however, the drop in stated capacity doesn't mean much—beyond indicating that the marginal operators are dropping out. The active capacity of the mills remaining in business has been going up. In 1947, mills reporting flour output to the Northwestern Miller operated at 94% of capacity—highest on record. And flour production in 1947 climbed to 302,400,000 cwt., also a record.

• **The 1947 Record**—Largely responsible for the record 1947 output was a heavy export demand created by postwar relief and the reopening of normal export markets. Output this year is currently running about 20% below a year ago (BW—Apr. 17'48, p. 34). This is due to a disturbing slump in domestic demand, and an export volume considerably below 1947 levels.

During the war, and immediate post-war periods, export and Army business kept many mills running. Now with the adjustment back to a more normal pace and with other foods once again on the available list, a lot of the mills have had to close down.

• **Hedge**—As a hedge against the narrow profit dangers inherent in the milling industry, the major companies have diversified their interests in recent years. General Mills, for example, has entered the mechanical field, home appliances, vegetable oils, and developed a long list of food specialty items. Pillsbury is in the animal feed business and soybean processing. It has also greatly expanded its line of prepared mixes, such as pie crust mix and hot roll mix. Other leading milling companies are likewise branching out and making their bids for extra profits by producing and selling allied products.

• **Profits**—All this demands a big operation, with a sales and distributing setup capable of merchandising these additional products. But size pays off: Because of it, General Mills has never made less than \$3.6-million net profit (BW—Feb. 28'48, p. 66). And last year Pillsbury's net income was \$4.6-million. International Milling's earnings, too, have been consistently good. Net in-



WHAT thieves and marauders think of Cyclone Chain Link Fence is usually unprintable. But what plant management thinks, you can tell from the fact that Cyclone is the world's most widely used property protection fence.

The reasons for Cyclone's popularity lie in its excellent design, sturdy construction and strict installation standards. It stands up in tough conditions of weather and terrain, giving years of trouble-free service. With Cyclone, top rails won't buckle, gates won't

drag, posts won't get out of alignment.

To get the facts on U.S.S. Cyclone Fence for yourself, send for your free copy of our illustrated book giving full data and specifications. Or ask for an expert Cyclone engineer to assist you in planning and estimating.

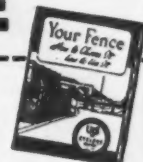
There's no obligation—and remember—no job is too large or too small for Cyclone.

CYCLONE FENCE DIVISION
(AMERICAN STEEL & WIRE COMPANY)
WAUKEGAN, ILLINOIS • BRANCHES IN PRINCIPAL CITIES
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U-S-S CYCLONE FENCE



Cyclone Fence, Waukegan, Ill., DEPT. 478
We'll send you our free, 32-page book on fences. It's full of facts, specifications, illustrations. Shows 14 types of fence. Before you choose any fence for your property, get the facts about Cyclone.



Name.....
Address.....
City..... State.....
Interested in fencing: ☐ Industrial; ☐ School; ☐ Playground; ☐ Residence. Approximately feet.



UNITED STATES STEEL

This is under no circumstances to be construed as an offering of these securities for sale, or as an offer to buy, or as a solicitation of an offer to buy, any of such securities. The offer is made only by means of the Prospectus.

NEW ISSUE

June 30, 1948

600,000 Shares

The Permanente Metals Corporation

Capital Stock

(Par Value \$1.00 Per Share)

Price \$15 per share

Copies of the Prospectus may be obtained from any of the several underwriters, including the undersigned, only in States in which such underwriters are qualified to act as dealers in securities and in which such Prospectus may legally be distributed.

The First Boston Corporation

Dean Witter & Co.

Blyth & Co., Inc.

Eastman, Dillon & Co.

Schwabacher & Co.

White, Weld & Co.

Central Republic Company
(Incorporated)

Hallgarten & Co.

Hemphill, Noyes & Co.

Paine, Webber, Jackson & Curtis

E. H. Rollins & Sons
Incorporated

Shields & Company

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Bonds. The offer is made only by the Prospectus.

\$90,000,000

New York Telephone Company

Refunding Mortgage 3% Bonds, Series F

Dated July 1, 1948

Due July 1, 1981

Interest payable January 1 and July 1 in New York City

Price 101½% and Accrued Interest

Copies of the Prospectus may be obtained from only such of the undersigned as may legally offer these Bonds in compliance with the securities laws of the respective States.

MORGAN STANLEY & CO.

BLYTH & CO., INC. THE FIRST BOSTON CORPORATION GLORE, FORGAN & CO.

GOLDMAN, SACHS & CO. HARRIMAN RIPLEY & CO. KIDDER, PEABODY & CO.

LEHMAN BROTHERS SALOMON BROS. & HUTZLER SMITH, BARNEY & CO.

STONE & WEBSTER SECURITIES CORPORATION UNION SECURITIES CORPORATION

June 30, 1948.

come over a period of years has been:

1929	\$1,564,719
1934	1,444,254
1939	1,945,484
1944	2,610,110
1945	2,845,501
1946	3,244,907
1947	4,592,972

Like other bigsters, International has been steadily adding to its holdings in the milling and allied fields. Thus, in 1942, International purchased Commercial Milling, Detroit; in 1945, it acquired control of Shellabarger's, Salina, Kan.; in 1946, it got Capital Flour Mills, St. Paul; and last year, it bought Capitol Elevator, Duluth.

• **Bigness**—Modern flour production lends itself to a larger operation than in bygone days. Emphasis is on machinery made along streamlined, insect-proof lines. New machines are much less cumbersome, with outside hardware eliminated wherever possible. They are faster, have greater capacity, require less power. The most revolutionary changes are in flour packing, where the operation is fast becoming 100% automatic. New flour mills are multi-windowed and scientifically constructed to do away with insect harbors. The trend is toward a fully automatic operation.

• **Biggest Milling States**—No. 1 milling state in point of capacity is Kansas, with 72 mills capable of producing 179,560 sacks of flour daily. Second is Minnesota, with 71 mills and a capacity of 144,507. New York is third with 54 mills and a capacity of 118,116 sacks. Missouri follows with 82 mills and a 111,653-sack capacity.

Virginia leads all states in the number of mills, with 234. But their capacity is only 37,807 sacks. Buffalo, with its 5 plants, has a daily capacity almost three times as great as all of the mills in Virginia combined.

HOLC Healthy

The depression-born home loan agency is closing out its books in good shape. It may even show a profit.

Businessmen aren't the only ones that have been helped by the national prosperity of recent years: It's also been a lifesaver for government agencies set up back in the depression to extend emergency financial aid.

The proof lies in the report issued by the Home Owners Loan Corp. last week on its 15th anniversary. HOLC was created in the depth of the 1933 real estate and mortgage panic to bail out home owners who were unable to secure financial aid elsewhere. Despite all the earlier forebodings, HOLC hasn't

drowned in a flood of red ink (BW-Jan.17'48,p81).

• **Current Scoreboard**—The agency can instead:

(1) Boast that it has successfully liquidated 87.3% of its cumulative investment of \$3,494,645,000 in past-due, shaky mortgages (it has only \$444-million worth of investments left in its mortgage loan portfolio).

(2) Show that it holds only 44 of the 198,000 properties acquired to protect the government's interests.

(3) Predict that within a year it will be entirely out of the red—thanks to the effect of the war and postwar business boom.

• **Favorable Terms**—One reason for such a good showing has been the favorable terms under which HOLC has been able to borrow money, due to its status as a public agency.

Since 1945, the corporation has financed its operations with direct loans from the Treasury. But before that it secured necessary funds by selling bonds to the public. In all, it sold a total of \$3,489,633,000 worth of such obligations during that period.

HOLC borrowed from the public at rates substantially less than its own loan rates. Thus, it has been able to: (1) take care of running costs; (2) accumulate substantial reserves to offset possible losses; and (3) retire all but \$395-million (about 11%) of the huge amount of bonds that were once outstanding.

• **Lowered Costs**—Since 1936 the HOLC has made no loans. Its major work since then has been collection of principal and interest on the advances made earlier. It has also been kept busy managing, selling, and maintaining the properties it had to take over.

This work has dwindled considerably during recent years. This has cut running costs sharply. For instance, HOLC today handles all billing and collections through one regional office—compared with the 458 offices it maintained back in 1934. Its employees now number 593. In January, 1948, there were 660; a year ago, 1,750; and at the height of HOLC's activities, some 21,000.

• **Possibly a Profit**—Of course, you can't be sure yet how much of the \$200-million in original capital loaned by the Treasury will be returned when HOLC finally closes its books.

William K. Divers, chairman of the Home Loan Bank Board—which is overseeing HOLC's liquidation—takes an optimistic view. He thinks that the Treasury will get back all its \$200-million, and possibly a small profit to boot. Up to recently, HOLC had earned a net income of some \$300 million after paying all running costs and interests on its bonds. Net profits for the year ended Apr. 30, 1948, alone came to almost \$15.9-million.

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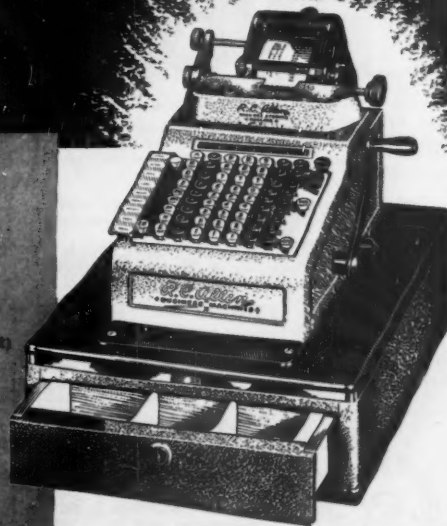
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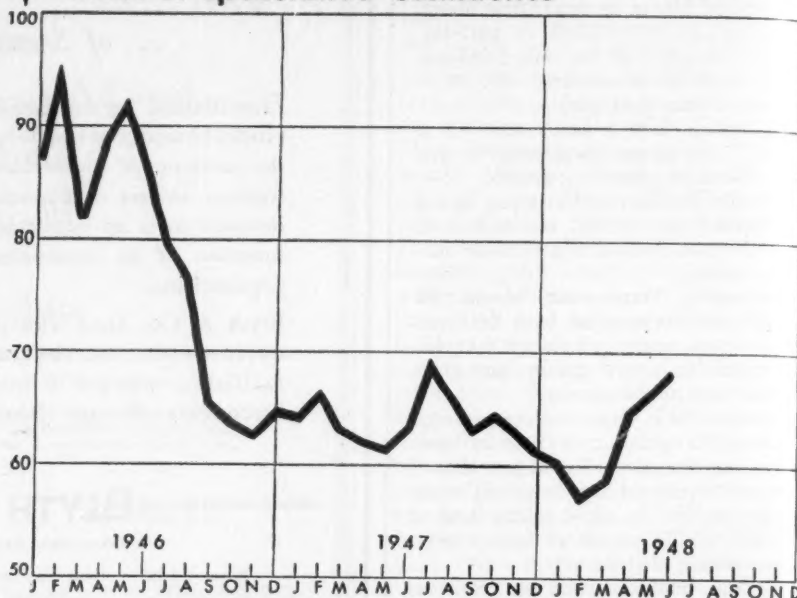


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THE MARKETS

Index of Speculative Confidence

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Measuring Market Psychology

Wall Street's mental attitude is big factor in price movements. Ratio of stock prices to business activity is rough measure of that attitude. Confidence has been rising since February.

As a rule, it's not the big news developments that make bull markets or bear markets in stocks. It's the subtle, intangible change in the attitudes of investors and speculators. And this seems to be true of the present market—whether it be bull, bear, or cross-breed.

• **Yardstick**—Of course, you can't lay a statistical yardstick alongside anything as elusive as a state of mind. But there are various ways you can get a rough measure of what is happening to confidence. One is to divide an index of stock prices by an index of business activity. For example, take Standard & Poor's 90-stock index and the Business Week

Index of Business Activity. The ratio of these two gives an index of speculative confidence (chart, above).

In some ways at least, this index gives a better picture of the market than the stock-price averages alone. It shows, for instance, that confidence was fading fast in the summer of 1946—although the big break in the stock market did not come until September.

• **This Year's Picture**—In 1948, the index shows that confidence dragged bottom in February. Since then it has been climbing steadily. In other words, the market has been feeling better and better about the future of the business boom. It has been less and less sure that the bottom was about to fall out of corporate sales and profits.

It is worth noticing, though, that the index still has a long way to go before it gets back to the level of early 1946. In fact, it is no higher now than it was at the peak of the summer rally last year.

• **Bullish Thinking**—If you feel bullish, you can say that just shows how far up the present market can go without encountering any real resistance. And you will find that viewpoint happily received in Wall Street today.

By and large, the bulls think the market has been doing pretty well. The long

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	165.9	164.1	165.9	153.2
Railroad	51.9	51.1	50.8	43.7
Utility	74.2	74.5	73.6	76.6
Bonds				
Industrial*	99.2	98.7	97.5	103.1
Railroad	89.3	89.5	90.0	88.9
Utility*	95.8	95.8	95.4	103.5

* New series.
Data: Standard & Poor's Corp.

period of going nowhere has been getting on their nerves. But they like the way the rail average has been pushing into new high ground. They hope the rails are blazing the way for the industrial, as they did before the dramatic breakthrough in May.

Also, the market is now in the neighborhood of some points that have at least a sentimental importance. The Dow-Jones rails at midweek were less than a point under their 1937 high, and only about four points below the 1946 peak. The industrials were about four points under their 1937 top. The 1947 high is still 22 points away.

Forecasting Cotton Surplus?

The supply squeeze in cotton is about over. And, if the portents are reliable at this distance, the fiber is again headed for a surplus.

To most observers, there is only one mystery: Why, with prices towering at anywhere from 30¢ to almost 40¢ a lb. during the last two years, has it taken so long for supply to catch up with demand? Nobody has yet come up with a complete answer.

• **Bigger Plantings**—Cotton acreage in this country expanded very little after the war—until planting time this spring. Trade estimates place this year's gain in seeding at between 10% and 15%. Also because of high prices, Egyptian plantings unofficially are reported much larger than last year.

Apprehensions over the market have been translated into prices the last few weeks. Spot quotations (chart) have slid about 2¢ a lb. recently and are down more than 3¢ from their 1948 top.

• **Drop in Futures**—More indicative than spot prices, however, are futures. Spot transactions still are at more than

35¢ a lb. But new crop futures—cotton which, for the most part, has not yet been harvested—bring only a little over 32¢. And, if you want to bet on what conditions will be after the 1949 harvest, you will buy or sell contracts calling for delivery at less than 30¢ a lb.

The story is becoming a fairly clear one: Demand has been declining while production is rising.

• **Early Postwar Demand**—The American crops were very small in both 1945 and 1946—below 9-million bales. Meanwhile, postwar demand was almost insatiable. Huge use by American mills gobbled up all that remained of the 13-million-bale prewar surplus.

As we came up to the start of the 1947 harvest, there were only about 2.4-million bales of old crop cotton on hand. That was a thin margin of safety—and prices began to show it.

Even the rise in the 1947 crop to about 11.4-million bales wasn't enough to offset buyers' anxiety over supply. If home use and exports had held up to the 13.6-million-bale level of the 1946-47 crop year, we would be scraping the bottom of the bale cloth.

• **Current Demand**—But demand didn't hold up. Domestic use in the season drawing to a close this month probably won't be much over 8.5-million bales against a bit over 10-million a year ago; exports are unlikely to top 2-million, against more than 3.5-million bales in the previous year.

The result will be a carryover Aug. 1 of something like 3.3-million bales. That will be up some 900,000 bales from a year earlier. What is more, it approximates what was considered a normal season-end stock a couple of decades ago.

Now suppose the harvest, which gets going full tilt next month, runs ahead of 1947 by about the same percentage as acreage (and weather to date has indicated that it very well might). Then a crop of between 12.5-million and 13-million bales could be expected. Add on the carryover, and total supply for the 1948-49 consuming season would be in the neighborhood of 16-million bales—a good 2-million above that of the 1947-48 crop year.

• **Prospects**—Nobody is looking for any great change in domestic use, either up or down, in the coming 12 months (barring an economic upset that would seriously nip purchasing power). The biggest unknown is demand from abroad. There now is a \$150-million revolving fund to supply the cotton textile mills of Germany and Japan; further millions of ECA money also will go for cotton.

The prevailing hope is to boost exports back to around 3.5-million bales a year. That, plus home needs somewhere near 9-million a year, should at least keep surpluses from piling up very fast.

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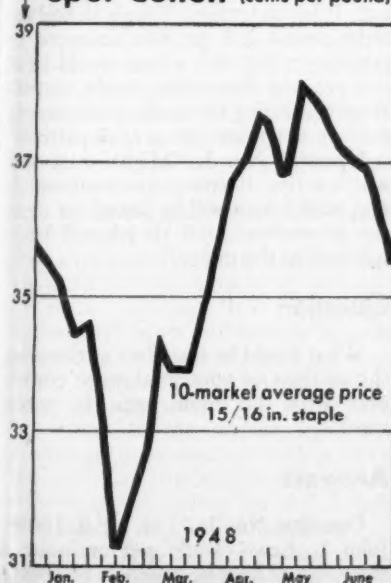
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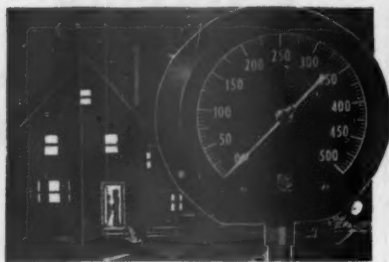
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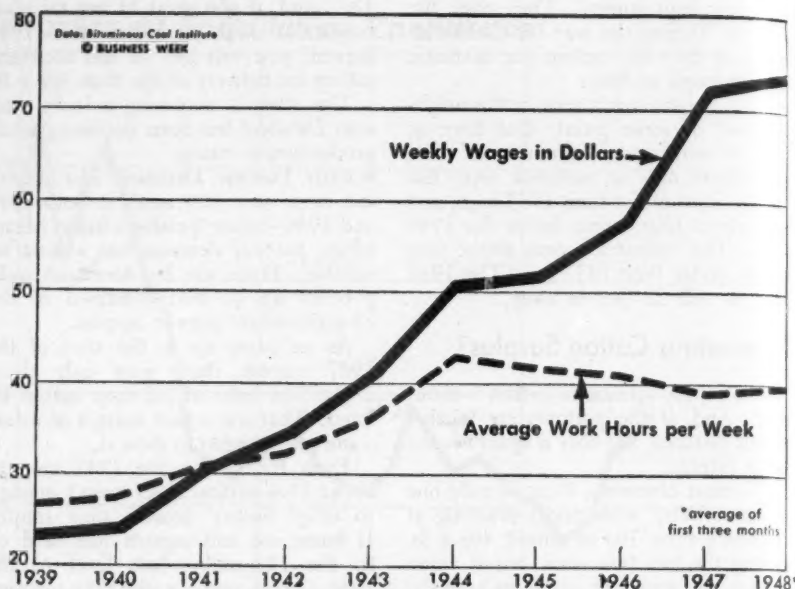
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What Can the Operators Do?

Four questions frankly answered by three leading coal operators show areas of agreement and disagreement on what the industry can do to rehabilitate employers' bargaining position.

This has been a "morning after" week for the soft coal operators. Their employees—those in mines not owned by steel companies—returned from vacation and took up their picks and shovels at the new rate of \$14.05 a day, plus welfare benefits and pensions. Adrift in the backwash of another great Lewis triumph (BW-Jul.3'48,p68), the "non-captive" operators are asking themselves some searching, self-critical questions: What have they done wrong? What can they do differently in the future?

Business Week has gone to three of the most important people in coal management, put to them four questions being widely discussed in coal circles, promised them complete anonymity in return for their frank opinions. Here is the result:

Question

Would a better contract result from empowering a single representative of the operators, with full authority, to negotiate in their behalf?

Answers

Operator No. 1: "No. Too much rivalry, envy, and distrust between com-

panies to agree on an acceptable man in the first place. Breach between northern and southern operators is widening. Conditions in different producing fields vary so that such a plan would be unworkable; and as far as I am concerned, unthinkable."

Operator No. 2: "Yes. It would work out. It has in textiles. Tough to find the right person and get him accepted by everybody; but such a man would be of real value in determining basic contract structure, fitting the needs of the various fields in detail into the over-all pattern."

Operator No. 3: "Might work out; worth a try. If coal prices continue to rise, such a man will be forced on us by the government, and his job will be to nationalize the mines."

Question

What would be the effect of throwing the sessions of your joint wage conference with the union open to public view?

Answers

Operator No. 1: "I'm for it 100%. John L. Lewis would put on quite a show, but at least he wouldn't be able to

browbeat and curse and rant and rave the operators into a corner."

Operator No. 2: "Negotiations under such circumstances would make for more sincere and honest negotiating. This may sound like treason, but the facts are clear for everyone: Lewis has been gaining principally because he and the operators know that the increases will be passed on to the public. In these times, the operators won't lose their market, and Lewis knows there won't be too much consumer complaint. Show us an operator of any size that has anything but profited, despite his cries of anguish at Lewis' demands. It would be a most enlightening experience for the public to get a true picture of these so-called joint wage conferences between the operators and Lewis."

Operator No. 3: "Swell. But I doubt if Lewis would ever sit in such conferences. His bullying tactics and his smear remarks would bring down his house on his head, through public exposure. It would be a good thing for the public to know how little respect Lewis has for it."

Question

Would an independent, experienced public relations agency be helpful in presenting the operators' case to the public? How about the Bituminous Coal Institute in this connection?

Answers

Operator No. 1: "Such a job is crying to be done. The coal industry needs publicity, and the publicity it needs should not concern itself with anything except the facts—they are sufficient to make a good story, pro-operator. Percy Tetlow (union statistician) makes the B.C.I. look silly with the statistical information he has ready for Lewis at negotiations."

Operator No. 2: "Public relations agency would be of great assistance. Possibly more use could be made of information gathered and prepared by the B.C.I. But understand: These same men, or men of the same caliber, have been meeting annually on the same footing for the past 20 years and it is the same program each year. First the operator representatives enter and find their comfortable seats at the table, with each of them chanting: 'No'. They have agreed that Lewis will have to be given something, but their approach is always: 'No.' At these conferences, ill feelings that were engendered 15 to 20 years ago come to the surface. What is needed are some new and fresh actors in the cast. Can you imagine the operator representatives calling for B.C.I. help with figures, data, or information?"

Operator No. 3: "Professional public relations chatter leaves me cold. There

are plenty of able men in the industry who could meet the press on a friendly and understanding footing, but those are not the ones who are 'in' on the conferences. Operators and employees have been drawing closer together over the years, while at the same time the men who represent the industry and the union in conferences have been getting farther apart. Haven't enough respect for each other. Strictly speaking, the B.C.I. has failed to live up to its expectations, and I doubt if it has or ever will have—as presently constituted—anything of value to offer to the operators' representatives."

Question

Would it be advantageous—in terms of public relations and labor peace—for operators to enter negotiations with a definite proposal which they would adequately publicize?

Answers

Operator No. 1: "First let me get this off my chest: What is needed are new faces and a fresh approach at the negotiating table. The operators haven't won a negotiating battle for 20 years. And for the last 10 they have gone in with a hang-dog attitude to hold Lewis to as little as possible. That approach is wrong. They should have a program to begin with, and publicize it to the union before Lewis gets a chance to make one of his Barrymore exits. When the 'ops' feel nothing more can be granted, the public and the miners should be told why. This present system of letting Lewis dominate all proceedings and rant and rave about his poor little miners is a mistake on our part and should be corrected."

Operator No. 2: "Whichever party calls for negotiations, as a contract expires, should be made to publicize in advance the definite proposals it intends to present."

Operator No. 3: "If the operators had wanted to prevent another spiral of inflation, they were given a splendid opportunity right after steel announced its no-wage-increase policy. Instead of following, and putting Lewis on the defensive, they fought among themselves, eyed each other suspiciously, and finally ended up by agreeing that the public would willingly pay another increase. The operators certainly need a program in these negotiations other than flat opposition to everything Lewis demands. What they offered this time didn't come until the conference got under way. They could have offered it before, and given it out publicly without letting Lewis roar. And for once he would not have been able to go back and point to the offer as one he had scared out of the operators."



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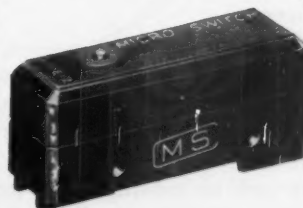
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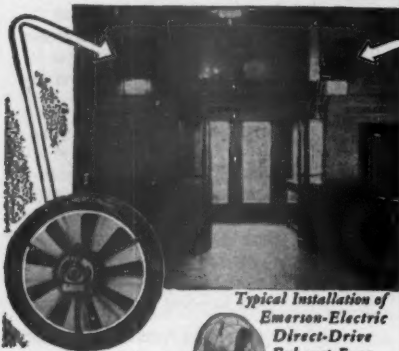
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Push Apprentice Training

Employers, labor, and public officials from 16 states and the District of Columbia confer at Lake Placid on how to break skilled labor bottlenecks, make it easier for youths to become craftsmen.

Over 1,500 industry, labor, education, and government figures met last week at Lake Placid, New York. The occasion: the fourth annual Eastern Seaboard Apprenticeship Conference, jointly sponsored by 16 states and the District of Columbia. The very size of the meeting indicates the current importance of the apprenticeship problem. And the high rank of those who attended—from A.F.L., C.I.O., N.A.M., and Associated General Contractors of America, among others—underlined the determination in diverse quarters to get that problem solved.

• **Problem**—Put baldly, the apprentice problem turns on (1) getting an adequate supply of workers trained in craft skills, and (2) clearing away the barriers to their employment.

The two parts cannot be separated. Clearly, you can't attract many apprentices if there aren't going to be job opportunities for them after training. Nor can you sell a young man on the advantage of long years of apprenticeship unless you can prove conclusively that his ultimate jobs will be appreciably better than one that doesn't take extensive training.

• **Answer**—The solution is as easily indicated as the problem: (1) Simplify and improve the training program so that the apprentice period can be cut sharply; and (2) make it easier for the new journeyman to work at the trade in which he is trained.

But apprenticeship is older than the enterprise system and older than labor unionism; it is encrusted with the traditions of centuries. To achieve either of the needed solutions, the break with these long-established customs will have to be revolutionary.

• **Just a Dent**—How to make a dent on the problem was the whole agenda at Lake Placid. Nothing was solved, nothing wrapped up. Spokesmen for the varied interests concerned with apprenticeship spoke their pieces and listened to the other fellow's. All felt that some progress resulted from just talking it over. The states represented are resolved to intensify their apprenticeship programs, and they are depending on more cooperation and interest from both industry and labor.

An example of the kind of program which will be expanded is the Pennsylvania Institute of Trades, in Philadelphia. Currently, more than 100 young men are enrolled there in a bricklaying course. The students, many of whom are ex-G.I.'s, work under the direction of skilled artisans who are specially trained to teach their trade. By applying the techniques of modern educational instruction to an educational system older than the pyramids, this school for apprenticeship training hopes to put new life into an occupation where the average workman is now 50 years old.

For a glimpse of the old and new in apprenticeship, see page 90.

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1 Not much more than 50 years ago, the apprentice was the lowest of the lowly. When he signed up to learn a trade, he put himself at the mercy of master and journeymen

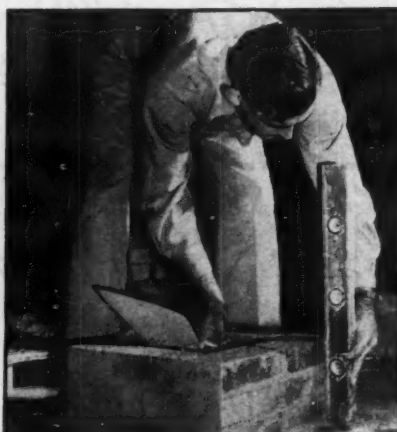


2 In this modern Philadelphia trade school, apprenticeship is a course of study with high and rigid academic standards. Here, a class made up largely of ex-G.I.'s learn bricklaying

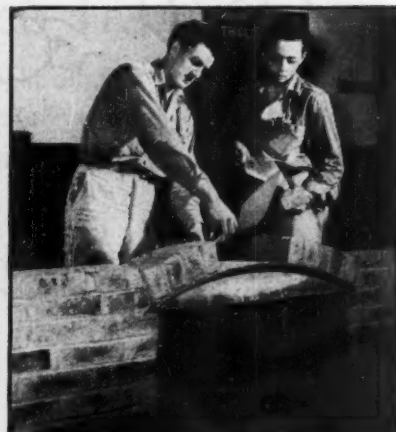
Slavery Gone From Today's Apprenticeship



3 On-the-job conditions are simulated in the school's "work laboratory," supplementing classroom instruction



4 Each laboratory job must meet the city building code specifications. Students are graded on everything



5 Making an archway presents an advanced problem. The apprentices work both jointly and solo



6 Under constant supervision, students get a rounded program of practice, theory, textbook study, and discussion. They put in a full day, encounter every existing bricklaying problem



7 The lure of high wages in an undermanned occupation make earnest learners of a serious group of youngsters. Their goal: the trade certificate which is the badge of the journeyman

The Ford Puzzle

Company has quit its no-raise position. But closing the gap between its figure and the union's may be tough.

The last big wage negotiation in the manufacturing field is going on at Detroit. Bargaining between Ford Motor Co. and C.I.O.'s United Auto Workers is likely to wind up around the 14¢ level of other auto company advances—but there's also a faint outside chance that it won't.

• **Chain of Events**—That chance arises from a chain of rather unusual circumstances in what has been a definitely unusual year, from the standpoint of wage negotiations.

It all began two months ago when Ford announced intentions to readjust wages to the levels maintained by competitors—meaning downward (BW—May 22 '48, p. 110). This position, answering a union demand for a package advance in excess of 50¢ an hour, came when industry generally was standing firm against labor's wage drive.

But, before long, the industry's front crumbled. General Motors broke the dam with its 11¢-plus-living-cost-adjustments raise; the Chrysler strike ended with a 13¢ advance. General Electric and Westinghouse changed positions and gave substantial advances. Looking around realistically, Ford officials abruptly changed their stand.

• **About Face**—In late June, Ford vice-president John S. Bugas wrote an unusual letter to the union. Conditions had changed, the letter said. Competitive raises made it impossible for Ford to continue to claim it was paying Detroit's highest automotive wages "by at least 6¢." Accordingly, the company had prepared a "complete and thoroughly deliberated" offer, one that precluded "room for horse trading." The offer: 11¢ raises for classifications that now earn under \$1.50 an hour; 14¢ for those above. Unofficial sources estimated the average would be 12.3¢. Other stipulations were included.

The union retorted in kind. It borrowed the "no horse trading" phraseology of the Bugas letter in setting forth its own "complete and thoroughly deliberated position." It demanded a blanket 14¢ raise, plus fringe advances totaling another 14¢. The letter obviously sought to create a bargaining ground between the 11¢ offer and the 28¢ demand.

• **Ford's Position**—On one hand, Ford believes firmly that it pays a higher average rate than any other major Detroit competitor. (The competitors

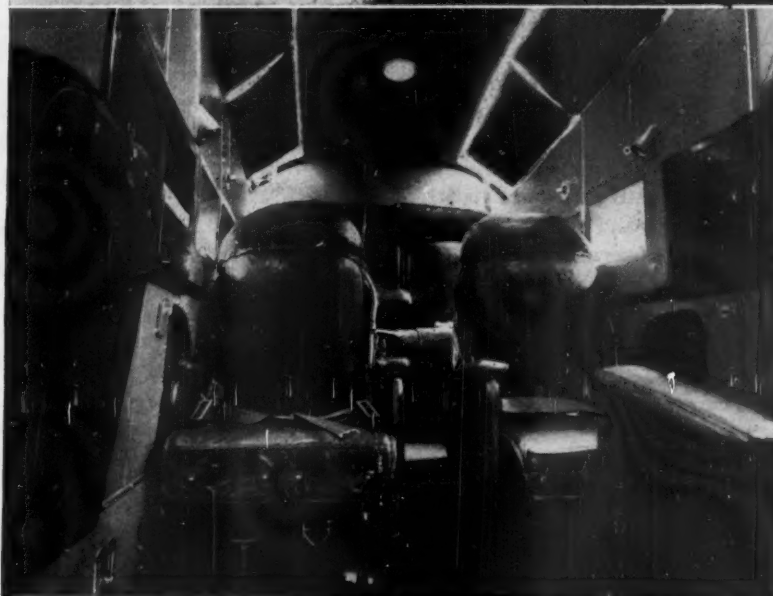
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argue with this; they say that on a job-for-job basis the difference between plants today amounts to only fractions of pennies.) Ford's desire to cut down the gap it sees serves to stiffen its wage attitude.

On the other hand, Ford doesn't want a strike. It wants to ride the crest of attention it has created with its new model (BW—Jun. 12'48, p28).

• **Timing**—In any other year, the timing of its negotiations would have given Ford a decided advantage. By the time the last big contract is reached, the patterns have hardened, and the year's "big strike"—if any—is over. Thus, General Motors was first at bat in 1945, and took a long strike; Chrysler and Ford settled in the meantime. This year Chrysler was first; while it was struck, G.M. settled.

But this year the wage pattern is not so inflexible as in previous years. Furthermore, union militancy at Ford (where there has been no major strike since the war) is more so than at either G.M. or Chrysler. And hence there's the possibility that the Ford negotiations may not end in the same routine pattern as others.

One interesting aspect of the Ford situation is that a spring wave of wildcat strikes, felt in many other shops in Detroit, barely visited the Rouge plants. Ford has been improving its wildcat-strike record for the past two or three years. Man-days lost by wildcat strikes have dwindled to an annual total measureable in the 10,000's for the last year or two. Before that, they were well up in the 100,000's.

The reasons: more uniform discipline by the company; an improved grievance procedure; and a continuing effort by management to do a better job of the "human engineering" which Henry Ford II thinks about so constantly.

TIRE PATTERN: 11¢ BOOST

When U. S. Rubber Co. granted its 35,000 production workers an 11¢-an-hour raise last week, it became the last member of the industry's Big Four to agree on that figure. These companies—Firestone, Goodrich, Goodyear, and U. S.—produce about 80% of the nation's tires.

Like Goodyear and Goodrich, U. S. also granted three-week paid vacations to all production workers with 15 years or more service. Previously two weeks was the maximum vacation.

The Pictures—Acme—97 (left), 103; Bettmann Archive—90 (top left); Harris & Ewing—26 (left); Int. News—60, 90, 97 (center); Wide World—100; Wm. Vandivert (Magnum)—Int. Paper—22, 23.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

JULY 10, 1948



The West has accepted Moscow's challenge for a showdown on Germany.

That's the meaning of the U. S., British, and French protests over the Berlin blockade.

The Russians may refuse to talk except in another foreign ministers' conference. And this would be giving them just what they want: Their aim is to stall for time, to stop creation of a West German state.

But despite all past failures, the West might buy such a conference—if the Russians first lift their blockade of the old German capital.

There may be no other way out for our side. U. S. and British officials won't admit it, but they know the air lift to Berlin won't work for long. By fall the weather alone could cause a breakdown.

Western diplomats may figure, too, that they can get somewhere with Molotov this time. Moscow isn't so glib now about building its own German state.

Poland and Czechoslovakia have turned thumbs down on the idea.

You can be sure, though, that Washington won't drop the plan for a German government. If the Russians want to make it an all-German state, that will be O.K. with the West. But they will have to fit in with our plan. And that means keeping out of the Ruhr.

There's no sign that Stalin intends to give any ground to Communist parties in Yugoslavia or the other satellite nations.

Pressure on Tito will probably be stepped up through (1) an economic blockade, and (2) greater Soviet military strength in Albania.

A purge of Communist parties is likely in Poland, Czechoslovakia, Hungary, and Rumania.

The German currency reform is off to a good start.

Goods are appearing for the first time in many shops. The value of the new Deutsche Mark has shot up on the currency black market.

Washington expects to see the reform work out about the same way a similar move (last December) did in Austria.

Here's what happened since Austrian currency reform:

(1) Industrial production has gone up 20% to 25%. Exports are up about 15%.

(2) Food prices on the black market have dropped by two-thirds and are still falling.

(3) Money is so scarce that there's little buying of non-essentials.

Now that Stalin and Tito have fallen out, Italy is dickering with Yugoslavia to settle the Trieste affair.

Rome is offering Belgrade this deal: "We'll take the northern part of the free territory now occupied by U. S. and British troops, including the city of Trieste. You can have the southern area that your troops now occupy."

Washington and London say such a deal will be O. K. with them. Moscow won't like it, of course. But there's not much the Russians can do if Tito wants to come to terms with Italy.

The State Department thinks it may get a lend-lease settlement with Russia by fall.

The aim is to collect for the civilian type stuff that has peacetime value.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JULY 10, 1948

(The U. S. will be lucky to get 5% of the \$11-billion total that went to Russia under lend-lease.)

U. S. and Russian officials have met on the subject at least 20 times in the past year. The biggest arguments have been over:

(1) Ships. The Russians still have 87 merchant vessels plus three icebreakers and 28 U. S. Navy frigates.

(2) Patents. Russians got aviation gasoline and other processes from U. S. companies such as Houdry Process Corp.; Max Miller & Co., Inc.; Texaco Development Corp.; Universal Oil Products Co.

The Soviet Trade Mission in London still won't sign for British manufactures as per the Anglo-Russian short-term trade agreement.

The Russians complain that: (1) British prices are 40% to 50% over world levels; (2) delivery dates are 15 months longer than they expected.

But a Polish buying mission has just signed for \$12-million worth of British capital goods.

Included are: two tankers (\$4-million); cotton spinning and doubling machinery (\$5.6-million); jute textile machinery (\$1-million); bus chassis (\$800,000); coal equipment (\$600,000).

The Poles expect to sign up for another \$20-million in the next three months. They'll pay \$8-million for coal mining equipment, and a big sum for electrical equipment.

British firms are still bidding for both Polish and Soviet orders without knowing whether the U. S. will approve or not. They haven't seen ECA's list of goods that Marshall Plan countries aren't supposed to sell behind the Iron Curtain.

London financial experts are shedding their worries about the competitive position of British goods in world markets; also their fears about devaluation of the pound.

The experts see the Labor government's deflation policy pulling down the price of British exports—while U. S. prices keep going up.

The one thing that bothers them is the rising cost of raw materials imported from the Western Hemisphere.

The M. W. Kellogg Co. of New York is providing know-how for the expansion of Britain's chemical industry.

Imperial Chemical Industries has hired the U. S. firm to engineer a petroleum plant at Wilton, Yorkshire. Output will be ethylene and propylene.

This is part of I.C.I.'s huge expansion program at Wilton (BW-Jul. 3'48,p79).

Trade still goes on between Nationalist and Communist China (page 97).

The biggest volume of business seems to be in eggs. U. S. and British egg-packing companies in Shanghai handle most of the deals.

Here's how the traffic flows: Nationalist buyers come and go between the two Chinas at will. They purchase a shipment of eggs to be delivered at some point in No Man's Land. The buyer turns over official Chinese money to a Communist representative, who then gives up local currency to pay off the Communist farmers.

In Tientsin recently, an American firm was offered 30-million lb. of wool for export. The wool came off the backs of Communist sheep.

BUSINESS ABROAD



Roger Lapham



Wong Wen-hao



Donald S. Gilpatric

Lapham's administrative talent, Wong's efficiency, and Gilpatric's experience will help channel . . .

U. S. Aid to China: Chiang's Last Chance

U. S. will watch closely how its \$400-million of assistance is spent. If it doesn't turn the tide, Chiang is probably through.

SHANGHAI—The new U. S. aid program will be Chiang Kai-shek's last chance. Either he does a remarkable about-face or the U. S. may be forced to write off the Chiang government as a total loss.

China gets \$400-million in funds from the foreign-aid appropriations bill signed last week by President Truman. Before this came through, the U. S. had already subsidized Chiang to the tune of some \$4-billion since 1945.

• **Broken Promises**—And today there is almost nothing to show for the money. The civil war has gone from bad to worse. Promised land and money reforms have failed to materialize. Political chaos has reached new peaks. Inflation has vaulted to astronomic heights. (In June, alone, the cost of living went up 110%, say Shanghai officials.)

Now Congress' latest grant—to be handed out by the Economic Cooperation Administration—is supposed to turn the tide. In light of China's needs, this is less than a drop in the bucket. And many influential Chinese are saying that as long as Chiang stays in power there is no hope anyway.

• **Watchdogs**—Now, under ECA, money flowing into China has a much better chance of doing some good than it has ever had before. This time spending will be watched with an eagle eye. Secretary of State Marshall and other U. S. officials haven't forgotten past experi-

ences with dumping money blindly into the bottomless coffers of the Chinese government.

The watchdog is San Francisco's ex-mayor, Roger Lapham, ECA director in China. And Lapham's deputy is Donald S. Gilpatric, former head of the China Relief Mission. For the past year, CRM has done more to gain the good will of the Chinese than any U. S. venture since the war. Many able Chinese connected with CRM said that unless CRM's directors were brought into the ECA program they would not lend a hand (BW—Jun. 26 '48, p. 120).

• **Premier Wong**—The drive for efficiency has even brought a response from the Chinese government. China's new premier, Wong Wen-hao, was selected with the aid program in mind. He made his mark as an administrator—a rare bird indeed in China today.

Wong is not tied to any of the host of political cliques that clutter up Nanking. Whether he can keep his political neutrality while heading China's creaking, corrupt bureaucratic regime is another question. His greatest difficulty will be keeping the few good men left in the government from deserting.

• **Breakdown**—It is these men—together with ECA's Washington staff—who will have most to say about what is done with the U. S. taxpayers' money in China. Here is a general breakdown of how they will spend it:

Military Aid. Congress earmarked \$125-million to help out Chiang's armies against the Communists. ECA has no jurisdiction over the spending of it; it is a grant to Chiang's government to do with as he sees fit. Even if the Kuomintang spent the money on exactly what it was appropriated for, it could hardly turn the tide of battle. At best it will help Chiang hold South China. Anything more will take more money.

Industrial Materials. Most of the remaining aid fund will go to buy imports for China's industries. One big item that ECA will probably provide: 350,000 bales of raw cotton (\$70-million). Here are some other supplies that Chinese officials think they will ask for: food, gasoline, fertilizers, industrial equipment.

Chinese exports this year can't be expected to earn more than \$120-million. This figure, added to the ECA fund, falls way below China's \$700-million import bill for 1947. Imports in 1948 will have to be held below \$500-million.

Self-Liquidating Projects. The Chinese government has several power and irrigation projects in mind for which it would like to have some aid money. It gives high priority to a hydro-electric plant, 100 mi. southwest of Shanghai, which could supply Shanghai, Nanking, and the three neighboring provinces with more than enough electricity for their needs. Irrigation projects have been outlined for Kwangsi Province (in the South).

ECA isn't likely to go overboard on



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any of these projects. They all require large imports of machinery, and China's reserves of foreign exchange are mighty small.

Rehabilitation. ECA has tentatively set aside \$60-million for rehabilitation projects. The Chinese government wants to use most of this to repair the 660-mi. Canton-Hankow railroad, which has never recovered from the war. The railroad connects the Yangtze River in Central China with the Pearl River in the South. It was formerly a major transportation artery.

• **Behind the Problem**—Quite a few Chinese businessmen wonder if America's China-aid program will really build up China against the Communists. These critics feel it just can't do so if Chiang and the Kuomintang hold sway.

The roots of the Chinese civil war lie deeper than a Moscow-Washington tussle for influence in the Far East. The war grew from a genuine revolt against corruption and feudalism that have flourished under the Kuomintang government for years. Chiang's failure to stamp out these practices has been as catastrophic as his military defeats.

He hasn't carried out land reform nor squelched graft and corruption of his army officers and governmental officials. The malignant rent, tax, and usury system practiced by local and provincial officials—the core of the Kuomintang's right wing—is as much a part of China today as it ever was.

Spartan Communist leadership—while its methods have been ruthless—has at least given land reform, low taxes, and more efficient local government. These reforms are better ammunition than Japanese guns and bullets turned over by the Russians or equipment captured from Chiang's beleaguered troops.

• **Coming to Grips**—If the China-aid program can force Chiang to mend his ways, the U.S. may yet salvage some strategic benefit. More money would be required next year and for many years thereafter. But success this year would at least open up the road to permanent success in the future.

If Chiang won't come to terms, the U.S. must make a final choice:

(1) Grant all-out aid—and just about take control of Chiang's government to carry out reforms. State Dept. officials estimate this out would cost the U.S. \$1-billion a year for 10 to 15 years.

(2) Withdraw from China completely. This would probably mean the quick downfall of Chiang's government. The door would be open to the Communists, except perhaps for South China (BW—Jan. 17 '48, p101).

So the China-aid program is in many ways the last chance for the U.S., as well as for China: It must bring order out of chaos in China either with Chiang or without.

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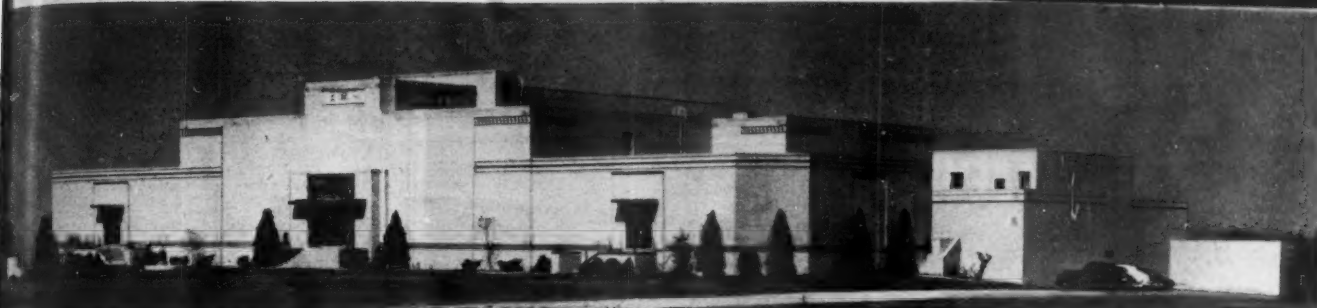
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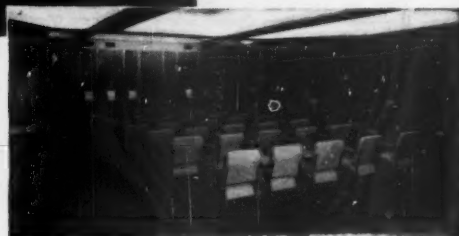
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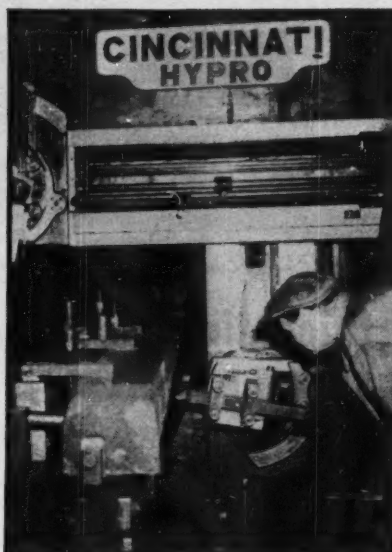
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Finland's Bid for Western Trade

Finns hope to participate in East-West trade under ERP. Their chief exports—wood, paper, pulp—are needed by western Europe. Communists badly beaten in parliamentary election.

HELSINKI—With a minimum of fuss and feathers, 14-million Finnish voters last week gave Communism a thumping defeat at the polls.

• **Poor Third**—The election reduced the Communist-run People's Democratic Union to a poor third among the nation's political parties. It was a strong protest against the Communists' strong-arm strike techniques; a flat turn-down of the Communists' grandiose nationalization schemes.

Finnish industry, which is still in private hands has been paying off the largest per-capita reparations debt so far assessed against any war belligerent. It intends to complete the job that way. (Only the traditional Scandinavian state-monopoly industries—railroads, communications, munitions, distilleries—are government-owned in Finland.)

Foreign policy wasn't an issue in the election. In the light of Finland's geographic predicament, no one questioned the need for a friendly policy toward the Soviet Union. And as long as Moscow holds the reparations whip over the Finnish people, the country can do no more than look longingly at the West.

• **Eyes to the West**—While Finland's independence will hang in the balance for some time to come, the elections put the Finnish people on record as being the most recalcitrant of Stalin's brood. And most Finns hope the West will sit up and take notice.

What the Finns want from the West

is trade. Wood products, paper, and pulp make up more than 90% of the country's exports—and western Europe needs all three. Finland, on the other hand, needs western machinery desperately if it is ever to work off its reparations yoke.

• **U. S. Machinery**—The country is banking on an expansion of East-West trade under the Marshall Plan. The U. S. Dept. of Commerce had this in mind when it recently unblocked \$4-million worth of industrial equipment destined for Finland. (The goods had been held up under the Mar. 1 ban on "potential war materials.") The equipment consists of power plants, saw mills, and machinery for the pulp and paper industries.

Washington counts on increased Finnish exports to western Europe. But it knows that, for a while, some of the machinery will have to work for Russian reparations. Until Finland discharges that debt, it will not be able to contribute any great volume to European recovery—or to its own recovery, for that matter.

• **Reparations**—The total bill from Moscow was \$300-million, based on 1938 prices. (This is actually about \$1-billion at today's prices.) About half of it has been paid. In May the Kremlin, with its eye on the coming elections, lopped 25% off the total bill. The rest must be delivered within the next four years. As of Mar. 31 Finland's reparations

deliveries included (in millions of 1938 dollars):

Ships	\$36.0
Machinery	34.8
Cellulose, paper	32.7
Wood products	26.5
Cable products	11.9

• **Weak Point**—The reparations burden was doubly heavy because it hit at Finland's almost nonexistent machinery-manufacturing industry. In the past few years the industry has been greatly expanded to meet the Soviet demands (mostly for complete pulp and paper mills). The Finns are sure the industry won't be able to pay its way later on; they figure it is just so much capital expansion gone to waste.

So far the Soviets haven't said just what items will be scratched off the list by the May reparations cut. The Finns hope—but doubt—that most will be machinery.

• **Good Bargain**—Even though the U. S. machinery will produce a trickle of goods for Russia, it will make much more for western Europe. Because of depreciation and war damage, Finland's woodworking industry in 1947 operated at only about 60% of prewar capacity. Almost 80% of the output went to the West.

Last year Great Britain took 41% of Finland's exports of wood products. (Big item: mine-pit props.) Belgium, Holland, and Denmark were big buyers. The Soviet Union took 15% as reparations.

Finnish pulp and paper exports went mostly to the West, too. The U. S. and Britain bought 55% of last year's total. The Soviet Union got just over 5%.

• **Balance in Sight**—The income from these exports about paid for Finland's 1947 import bill—but not for \$77-million in reparations payments. If Finland could get the machinery it needs, it might soon be one of the few countries in Europe to boast a favorable balance of trade.

One of the first tasks of the new parliament, which convenes this month, will be to persuade the West that Finland belongs in its economic sphere. Finns like to boast that it took three separate threats on the part of the Soviet Control Commission to convince the old parliament that Finland had to stay out of the Marshall Plan. The new parliament will carry on the fight—but with little chance of success.

• **Rightists on Top**—The leading party in Finland is now the right-of-center Agrarians. One of its leaders—Urho Kekkonen—is in line to replace Communist Mauno Pekkala as premier.

Right now the Communists say they will string along with the Agrarians—and the Social Democrats, the second strongest party. That doesn't mean political peace, but rather a truce while Moscow makes up its mind.



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LONDON LETTER

LONDON—The word has been going around the Conservative Party's Carleton Club that 2-million men may be unemployed in Britain by the end of the year. The same kind of talk has even come from a few Labor M.P.'s around the House of Commons bar.

Outside in London's shopping district, too, there have been signs that business is falling off. Throngs on Oxford Street are just window shopping—after three years of crying for something to buy. There are a lot more goods on the store shelves now. But buyers are balking at the prices.

The business recession is no natural economic phenomenon. The Labor government brought it about on purpose. To stem inflation and push exports, the government slapped purchase taxes on a whole raft of items. The idea was to keep buying down, force workers in home industries to shift to export industries.

THE LABORITES may have done too good a job for their own political well-being. It's true that until the recent London dock strike British exports had been running the highest in the nation's history. But at home consumers are up in arms. The wave of buyers' resistance is gathering momentum. Matters may be worse this week when the new National Insurance plan starts taking an extra dollar a week out of each pay envelope.

Textile manufacturers and department stores felt the sales sag most. Just before the June clearance sales, the Wholesale Textile Assn. appealed to the government for help. Said the association: Clothing sales through April were up only 2.9% over a year ago while stocks had jumped 77.3%. So beginning June 7 the government decreed that wholesalers and retailers could sell rationed goods at half their coupon value if they likewise cut prices at least half.

The shoppers only nibbled at the bait. True, scarce items such as curtain material, men's ties, children's clothing, and shoes sold well. But, much to their managers' surprise, many departments in the big West End stores wound up the sales with a lot of goods still on their shelves.

Depression symptoms have been

spreading to some trades in a few provincial areas, too.

THE RADIO INDUSTRY is a case in point. Two stiff purchase taxes in the last seven months have shot the retail price of radios so high that people won't buy. As a result, 20% of the industry's 55,000 workers have been given their walking papers.

Token layoffs in other industries have workers in South Wales and northeast England worried lest unemployment hit them this fall.

Many of the business-minded Carleton Club clientele will tell you British industry needs a taste of unemployment. As one businessman puts it, "we need more flexibility in our labor force . . . more bargaining power with the trade unions. A million unemployed would help us step up production a great deal."

SUCH A THOUGHT makes Laborites order double shots at the Commons bar. Their government rode into power on its promises of full employment. With elections in 1950 they are very sensitive to the "electorate" pulse.

The vote-conscious rank and file has forced party leaders like Sir Stafford Cripps to back down a little on the government's deflation policy. After an all-night debate on the purchase tax in Commons last month, Cripps yielded this much: He announced tax cuts on such items as clocks, mattresses, kitchen furniture, gas heaters, and paper napkins. Previously the Board of Trade had cut coupon rates on several items including shoes, stockings, ties, sheets, and gloves.

But this is just a detour—not a change in policy—for the government. Cripps has an ace in the hole: He knows there are still many factories throughout the country that are short of help. Dismissed radio workers in Lancashire found jobs waiting for them in the cotton mills. And that bolstered the cotton export trade.

THIS GIVES A CLUE as to how the government might squeeze through: Fractional unemployment could disappear after workers get new jobs in "essential" industries. Obviously, the Labor government is praying that will happen.

M. Ready to Turn Out First Aussie Car

MELBOURNE — General Motors-Holden's Ltd., is about to give Australia its first homemade automobile.

Currently, G. M.'s Australian subsidiary turns out cars assembled from parts manufactured at home and imported from both Britain and the U. S. But it has been laying the groundwork for an Australian car (BW—Aug. 16 '47, p. 10). The new car—as yet unnamed—will make its debut in September.

Five test models are now being put through their paces. Three were built at G. M.'s Detroit plant; two were copy-made by a General Motors-Holden's workshop Down Under.

G. M. is keeping the new car under wraps. Company officials have admitted only that it will (1) be smaller than G. M.'s U. S. cars, (2) have a horsepower about one-third or one-half that most U. S. makes, (3) sell for about \$2,000 plus sales tax.

The Chevrolet Stylemaster and Ford Deluxe Sedan are selling here at about \$150 more than the new entry. Some British models sell for about \$500. But dollar shortages keep U. S. cars out, and the British are way behind in deliveries.

G. M.'s initial production target is 10,000 cars a year by the latter half of 1949. In five years, the company will be the biggest private employer in the Commonwealth.



Special Delivery

A Dodge is about to take off from the port at Dar-es-Salaam for a ride into the interior of Tanganyika. Reason: During the East African rainy season, many roads turn into impassable seas of mud. So one company hired a British Bristol Freight plane to get a shipment of Dodges to an inland port on schedule.

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THE TREND

The High Cost of Government

The Republicans have been outdoing the Democrats for years in making complaints about too much government spending. They said they would whittle down the number of dollars spent by Washington if they ever got hold of the purse strings.

In the two years of the G.O.P.-dominated Congress, the Republicans have tried to make good on their promise to bring down the high cost of government. How did they do? That is an important question, because the Republicans in this presidential election year are running on the record of the 80th Congress.

A Look at the Record

The Republican Congress did cut \$1.5-billion from budget estimates of appropriations for fiscal 1948. But nearly all of that was wiped out by supplemental grants made early this year.

Congress has approved total appropriations for the 1949 fiscal year, which began last week, to the tune of \$32.7-billion. The budget estimate was \$35.4-billion. Apparently \$2.7-billion was "saved." But there is something phony there, for out of the \$6-billion appropriated for the European Recovery Program, \$3-billion is being charged back to the 1948 fiscal year. And the saving record will look even worse when supplemental appropriations are requested early next year to fill a lot of anticipated deficits.

Since the Republicans do not seem to have been very successful at budget cutting, there must be a reason. Or maybe several. We can think of two right away.

First and most obvious is the fact that there are elements in the budget that are almost impregnable to attack. The most notable one is interest on the public debt. That is now running at the rate of \$4.5-billion a year. Nobody wants to see the government default on its bond obligations, of course. So the interest has to be paid.

Second, there is a fairly clear political reason why Republicans, or Democrats, will not cut down on certain appropriations. They hesitate to vote against outlays for specific things they believe their constituents want. So they forget about national government saving while they nurture federal spending in their own locality.

This second reason demonstrates an urgent need for more effective methods to control government spending.

What Can Be Done?

Pleas have been made for closer scrutiny of all spending proposals by Congress. But when you see the hundreds of pages of testimony for money bills each year, you wonder whether more looking and listening will do any good. If anything, the chance for more saving will not

increase by pawing over the individual figures a long time.

Proposals have also been advanced for re-examination of all functions of government, and reorganization of the government to increase efficiency. We don't believe those efforts will pay off, either. "A fine report," all we say, as they put the copies on the shelf and forget about them.

A Meritorious Proposal

One proposal, though, does intrigue us. It comes from a man with years of experience in dealing with appropriations firsthand. That man is Marcellus Sheild, former Clerk of the House Appropriations Committee. He is the advocate of a plan—a simple plan—for handling spending measures. This is it:

All of the appropriation bills—there are about a dozen of them now—would be merged into two measures. One would cover all defense spending. The other would cover all nondefense spending. Eventually these two bills would be blended into one.

That would mean that each congressman would vote only once on federal spending. The votes would show, therefore, how each member stood with respect to the over-all burden. And the voters would be able to tell at a glance whether their congressmen had voted for economy or not.

Adoption of the single-bill plan would discourage one common politicking practice. It would make it less easy for the officeholder to say glibly he had voted against expansion of social security to save money, while forgetting to say he had voted for public works pork barrel projects costing hundreds of millions of dollars.

The single vote would influence the congressman to vote with full consciousness of the effect of that one ballot on the national budget. The single vote would lessen the congressman's interest in voting funds for items which have only a group or local interest.

One other feature is made a part of the single-vote plan. The President would have the power to veto extraneous substantive legislation tacked onto money bills. These riders are usually designed to force executive approval of them. Under the present system, disapproval would mean loss or delay of the appropriations, since the President now has to accept or reject the bills in their entirety.

The single-vote proposal may not cut out all the waste in government. It may not provide an air-tight control on expenditures. But it would be a move in both of the right directions. It would put congressmen on notice that the voting record on spending would be exposed. It would bring into range the long-desired goals of thrift and sound financial system.

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